

# Aviation News

MCGRAW-HILL PUBLISHING COMPANY, INC.

APRIL 15, 1946

## CAA To Get \$63,450,000 In '47

House Appropriations Committee slashes \$10,917,000 from amount recommended by Budget Bureau.....Page 7

\*

## Aero Procurement Bill Readied

Final draft before Undersecretary of War for approval; introduction of general measure expected soon.....Page 9

\*

## NAA Will Reorient Its Program

New policy to stress community air activities; National Aeronautics to be superseded by new magazine....Page 11

\*

## New Bush Freighter Due for Test

7- place Husky, built by Fairchild of Canada, is based on questionnaire circulated among operators.....Page 15

\*

## Dividend Pattern Is Uncertain

Industry's working capital balances can support some payments, however; C-W, Boeing moves typical....Page 20

\*

## Non-Scheduled Parley On Today

Institute of Air Transportation session in New York expected to draw nearly 100 line representatives.....Page 24

\*

## Changes in CAR Part 03 Possible

Conference of CAA officials and AIA committee will provide first group discussion of new regulations.....Page 31

\*

## Brewster Would Cut CAB Power

Announces he will introduce measure to restrict its international jurisdiction by redefining 1938 Act...Page 36

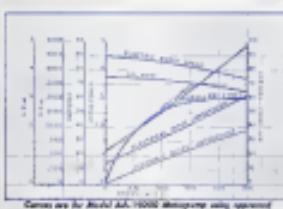


**New TACA President:** Julius C. Holmes, former Assistant Secretary of State and earlier an adviser to Gen. Eisenhower, takes office today as new president of TACA Airways, Central and South American airline, of which he also is a director. Widely experienced in South America, Holmes has resigned as vice-president of TWA, a large stockholder in TACA. He was secretary of the American delegation to the Pan American Commercial Conference in Buenos Aires in 1935 and in 1941 was president of a South American subsidiary of General Mills, Inc. He was consultant to the U. S. delegation to the Bermuda aviation conference. Holmes succeeds Lowell Yerex, who resigned as TACA president in December.

*For Greater Safety*

VICKERS

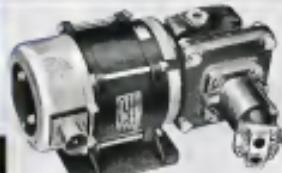
# AIRCRAFT MOTORPUMPS



Model AA-1000 Motorpump for maximum recommended operating pressure of 1000 psi.



Model 1-5411 Motorpump for maximum recommended operating pressure of 2000 psi.



Model 2-5000-3 Motorpump for maximum operating pressure of 3000 psi.

**Greater Safety . . . the first requirement of the aircraft . . .** is the principal reason for using Vickers Motorpumps which consist of a constant displacement piston type hydraulic pump driven by an electric motor. With the high pressures and low volumes now required in hydraulic systems, a fixed pump is frequently inadequate. By simply throwing a switch, the Vickers Motorpump becomes an emergency source of hydraulic pressure in event of failure of the main pressure system. The pilot is then able to give undivided attention to flight maneuvers under emergency conditions. Vickers Motorpumps are available in various sizes for maximum recommended operating pressures up to 3000 psi.

**VICKERS Incorporated**  
THE GARDNER DIVISION • DETROIT 31, MICHIGAN

ENGINEERS AND BUILDERS OF OIL  
HYDRAULIC EQUIPMENT SINCE 1921

THE AVIATION NEWS

## Washington Observer



Sales center, estimated to \$12,000,000—more than the total to that time from VE-fitter.

\* \* \*

**UNIFIED DEFENSE MEASURE**—Senate Military Affairs committee will begin action this week on a bill providing for a single Department of Common Defense. The measure, introduced by Senator Thomas (D., Utah), provides for a policy-making Secretary and Under Secretary and Secretaries for the three components Army, Navy and Air. Under the Secretary of Common Defense would be four Assistant Secretaries to handle various sections in the areas of all three such as scientific research and development, intelligence procurement of military supplies, logistics, industrial mobilization, medical care and hospitalization and education and training services. The bill provides for a Council of Common Defense to offer liaison between the military and foreign affairs officials, composed of the Secretary of Common Defense, Secretary of State and Secretary of the National Security Resources Board. The joint Chiefs of Staff would be represented.

\* \* \*

**NORTH PACIFIC CAFE**—North Pacific air route to China, Japan and the Far East will be in the news again soon with the CAB's decision on North Pacific applications expected within two weeks. The case has assumed added interest with the recent announcement that Pan American had been awarded the UNIBEL contract for air shipments to China.

\* \* \*

**FLIGHT TRAINING**—Details of policy regarding flight training courses of instruction under the GI Bill of Rights probably will go to Veterans Administration regional offices some time this week as a new pamphlet which VA has just completed but not yet released.

\* \* \*

**STATE DEPARTMENT AVIATION**—State Department Aviation Division, directed by Stokely Maran, is slated for dissolution in a departmental reorganization, expected shortly. Col. George Baker, former CAB member recently discharged from the AAE, would have been chief aviation executive in the department for several months with the title of director of Transport and Communications Policy. This post is expected to remain. Like the proposed new civil air service setup mentioned in last week's Aviation News, the aviation division is expected to be replaced by personnel assigned to aviation duties in each of the State Department's four major offices—American Republics, European Affairs, Near East and African Affairs, and Far Eastern Affairs.

\* \* \*

**FOREIGN SALES**—Foreign Liquidation Commission report section will show that the FLC tasks all rounds for overseas sales of aircraft and equipment during the two weeks ending March 16. Total sales since inception from pending dash and including sales at the Miami Export

CAA GROUP BEING MOVED—CAA's technical development group for aeronautics, airports and radio is moving to Washington where its engineering, shop and testing facilities already are located and a newly created business service division also will be established.



'COPTER CROSSES THE BORDER'

What started out as a fuel consumption test of Bell's new commercially-housed helicopter ended up as an international flight venture. The chopper, flown by Bell's chief helicopter test pilot, Floyd B. Carlson, Jr., was loaded at the customs barrier as the Berkmar Bridge, crossing the Nogales River at Nogales Falls, N. Y., where Carlson and D. G. Farman, Bell helicopter division manager, were prepared for entry. The flight had been intended as a routine one, but the border crossing was delayed so often it was decided that the aircraft's new barrier gate at the right to make international flights.



## The HANSEN PUSH-TITE COUPLING

The remarkable Hansen Push-Tite Coupling has won the Hansen as the most unique coupling on the market based on its unique—unparalleled performance. That is the reason why there are more Hansen Couplings used in larger and small manufacturing places than any other coupling. Its simplicity in design, short of operation "one swing" and long contacts have the Hansen speed increased production coupled with economy.

Hansen Push-Tite Coupling is unique in that it is easy and less to assemble part B (plastic) around part A (steel) with a quick-connected lock and it is automatically sealed and no steel sleeve is required which is unaffected disassembled and it is automatically sealed after off. There is no burning, shrinking or melting of parts in under air currents are common on some air couplings. It will allow an easy press on plug to connect and an easy push to uncouple. Hansen Push-Tite Coupling will disassemble. Complete removal section prevents leaking of Hansen Push-Tite Coupling and Plastic prevents from a leak contact us over 10,000 proofs without leaking.

Hansen Push-Tite air hose couplings are used for oil and grease. There are also other Hansen Couplings made for flexible gasoline, asphalt and sewage.

**Send for Free  
CATALOG TODAY!**

**HANSEN MANUFACTURING CO.**  
1786 EAST 27th STREET  
CLEVELAND 14, OHIO

## AVIATION NEWS

### THE STAFF

ROBERT F. BOONE	<i>General Manager</i>
ROBERT H. WIGG	<i>Editor</i>
C. SCOTT HERSEY	<i>Managing Editor</i>
MELVIN H. MCGILL	<i>Technical Editor</i>
CHARLES L. ABATE	<i>Editorial</i>
MARY FAUCILLE FEELEY	<i>Guest Advisor</i>
WILLIAM KENDRICK	<i>Special Assignment</i>
SHIRLEY STRALLENDEN	<i>Special Assignment</i>
SHERMAN BROWN	<i>People</i>
ALICE MCKEEVER	<i>Funny Flying Editor</i>
JAMES HARRIS	<i>Editorial Assistant</i>
J. S. VAN DERHOFF, JR.	<i>Copy Editor</i>
DETOL MADARD	<i>Art Director</i>
ROBERT W. MARTINEZ	<i>Sales Manager</i>

### CONTENTS

	PAGE
Washington Observer	3
Industry Observer	3
Headline News Service	7
Personals	16
Postscript	17
Books	18
Speed the Return	18
Funny Flying	20
Transcript	24
Editorial	42

### The Photon

from Associated Press

**Editor of Manufacturers**  
Michael Pines Bader  
Washington, D. C.  
**Photographer and Picture Editor**  
John W. Shultz, N. Y. & N. Y.  
**Photo Credit Office**, 600 Ave. of the Americas, New York 10019.



Volume 5, No. 26

Advertisers Index	
Aerospace Associates, Inc.	41
Aerojet General Corp.	40
Air-Cooled Aeromarine Corp.	40
Fluxcore Corp.	40
General Electric Co.	12, 13
General Tire & Rubber Co., The	12
Grumman Aircraft Engineering Corp.	15
Great General Corp.	16
Honeywell, Inc.	4
Kellogg-Wich Co.	41
Lindstrand Industries, Inc.	12
McDonnell Rock Co.	12
Metco Co. (The Glass Co.)	4
Mid-Continent Petroleum Corp.	26
Ohio Brass Co., The	17
Pittsburgh Plate Glass Co.	18
Truckee River Electric Power District	27
Turbo Research, Inc.	41
Vulcan Corp.	41
Wright Aeronautical Corp.	14

## News at Deadline

### AA Days 53 Douglas C-54's

With Army Administration has announced the sale of 53 C-54's for \$4,449,000. The American Airlines System, which formerly leased the planes, American Airlines Inc., the domestic operation, bought 45 for \$3,849,000, while American Overseas Airlines bought six for \$666,000. The planes are models A, B, and E. Under their former operating agreement, the companies had been renting the ships at \$1,660 to \$24,000 per plane per year. WAA also disclosed that it had an option from TWA to purchase six C-54's and two C-54B's the carrier has been operating. Price would be \$700,000. TWA, preparing the bid of nine. The TWA transaction would make a total of \$9,260,000 for the rate of \$1 C-54's.

### Research Bill Action Due

Senate action within the next two weeks will be aimed at the sponsors of the Kilgore-Burgess bill for the establishment of a National Research Foundation. Bi-party Leader Borkey has advised them that the measure is definitely on the legislative program for this session of Congress.

### Wetton Resigns AA Post

James A. Wetton has resigned as cargo sales manager of American Airlines, Inc. Wetton first joined American in 1945 as a rate and tariff analyst, then became an air cargo traffic manager and finally director of air freight operations. He formerly headed his own motor trucking line in Indiana. He has not disclosed his future plans.

### AA To Purchase 'Rainbows'

Announcement is expected next week of an order by American Airlines for a number of Republic Rainbow transports. Negotiations between the airlines and Republic Aviation Corp. were reported last week to have been virtually completed. The four-engine, 400-mile-an-hour transports involved was not stated, but was understood to exceed Pan American's order. PAA ordered six of the planes with the privilege of raising the number to eighteen.



Army and Navy aircraft airports in March totaled 167, against 173 in February and 163 in January. Airfield weight was 1,086,000 lbs compared with 1,076,000 AAF received 523 aircraft, Navy 65, Army one; 8 Boeing B-29's, 1 Douglas A-26, 17 North American P-51's, 1 P-40C, 1 P-42D, 1 Bell RP-61G, 21 Lockheed P-80's, 7 Fairchild C-45's, and 65 Custer PQ-14's. Navy received 2 Marine PBM-5's, 1 Douglas BT-2D-1, 14 Grumman PT-17's, 21 Chance Vought F4U-4's, 27 Grumman PBF-1's.

Industry officials say the West Coast expert unofficial AAF speed tests at Macar with a P-40 within 90 days. Final photo to break the British record by early summer will be performed in excess of the said mark.

The 100-hp Globe Swift Model GC-1A, already has received temporary certification, with a planned aircraft maximum speed and flight range by CAA of 200 miles a day, a fuel tank capacity of 100 lbs, according to Waltham officials.

Engineering & Research Corp. produced 712 Jeeps on the first pastes, and company executives estimate 350 for April. The January total was 947, February 325, March 322.

Canadian products has reached more a day, with April output of more than 200 reported by officials. Over 400 tons war ships have been delivered. Ground work is broken for the Dallas plant but July, first Texas built plane flew Aug. 13. Canadian aircraft engines in various forms is a snow elimination system developed at Welland, Ont., by Page-Harris Tube, Ltd. The manufacturer installed at its own plant, bringing pipes under a 5,000 sq ft sheltered loading area, keeping the pipes about 6 inches beneath the surface. Weather was cold. Re-drawing all the metal, now, but it was found this evaporated directly. An automatic solution is created through the pipe. Heating is in a special container through a coil immersed with the factory's steam plant. Heat is maintained only during snowy. No shelling was necessary at winter.

British engineers have developed liquid "springs" for aircraft landing gear which operate at pressures up to 100,000 lbs per square inch. Work on this development progressed during the war and has been applied to both civil and military planes. Tests have proved that light mineral oils are the most suitable fluids, according to Ottawa sources.

Biscom currently has more than 8,000 employees, a net gain of 4,500 since Nov. 8 when major reductions in employment to 6,112. Company officials expect that by late spring the company will be employing 12,000 workers. Diversification production is rapidly responsible for the increase.

Canadian government is discussing disposal of its Turbo Research, Ltd., at Toronto, in private enterprise. Part of the government's plan was built Russell Enterprises, Ltd., which made radars and aircraft navigation equipment in an associate company in August, 1946, in developing jet propulsion and gas turbine engines. It was planned to work Turbo Research in close cooperation with the British government's research organization. It is understood that Turbo Research has reached the construction stage. Whether the government will continue research work on jet propulsion and gas turbine engines in case of sale of the company is not known.

North American Aviation officials believe they will be able to have the new NAA-4 paragraph piston plane rolling off the line in 10 to 12 days in July. A CA certification test, already started, may be completed by May 15. A demonstration airplane is in the making and should be ready to fly by the time the test production starts. Demonstration models are being assembled.

Trans-Canada Air Lines has begun arrangements of testing facilities in the West Indies in preparation for regular Montreal-Buenos Aires-Toronto service with four-engined Douglas' coming next year. Several survey flights have been made. The line expects to receive the first of its modified Douglas (models to the U.S. DC-4) being built by Canadian, Ltd., before year's end.



## WORLD'S FIRST TURBO-JET COMMERCIAL AIRLINER.

... by Martin!

To its long record of achievement in aviation, The Glenn L. Martin Company now adds the world's first commercial aircraft powered with both jet turbine and jet propulsion. Being built for United Air Lines, this new plane is a super-carrying version of the Martin 3-0-3 airliner with its pressurized cabin for high-speed flying. Use of the new General Electric TG-100 gas turbine jet engines will give speeds approaching 400 mph—while the use of kerosene as a fuel, instead of high-octane gasoline, will materially reduce operating costs. When this plane enters service next year, coast-to-coast flying time, including two stops, will be cut to 5 hours. And after thorough testing as a cargo carrier, this plane will make its high speed and efficiency available to airline passengers.

In the words of a United Air Lines spokesman, this new Martin development represents "The biggest step forward in aviation since the all-metal airplane." The Glenn L. MARTIN COMPANY, BALTIMORE 3, Md.

**Martin**  
AIRCRAFT  
Baldwin-Douglas Division of Textron Inc.

Airliner equipping with Martin passenger or cargo planes.

PENNSYLVANIA-CENTRAL AIRLINES • EASTERN AIR LINES  
COLONIAL AIRLINES • CHICAGO & SOUTHERN AIR LINES  
PRANAH AIRWAYS • UNITED AIR LINES

\*Received while in the days of placing original order

AVIATION NEWS • April 13, 1948

VOLUME 5 • NUMBER 16

# Aviation News

McGraw-Hill Publishing Co., Inc.

April 13, 1948

## House Committee Recommends \$63,450,000 for CAA in 1947

Cuts allocation \$10,987,000 under Budget Bureau estimate, making total nearly \$31,000,000 below amount originally sought by agency; greatest slash is in air navigation facilities program.

String \$10,987,000 off the Budget Bureau estimate, the House Appropriations Committee last week recommended a 1947 final year appropriation of \$63,450,000 for the Civil Aeronautics Administration, its report setting the Commerce Department's appropriation for the coming year. The Budget Bureau had approved \$74,357,000 for the CAA, or approximately \$10,000,000 less than requested by the Administration.

The House committee granted a \$2,355,000 allocation for the Civil Aeronautics Board, or \$10,000 less than proposed by the Budget Bureau.

The biggest CAA cut was in funds for the air navigation facilities program. Appropriations outlined were:

For general administration, \$4,000,000 or \$44,000 below the Budget estimate;

For establishment of air navigation facilities, \$20,000,000, or \$20,000 less than the Budget estimate;

For maintenance and operation of air navigation facilities, \$10,500,000, or \$4,000,000 less than the Budget estimate;

For personnel development, \$700,000, a \$450,000 reduction from the Budget estimate;

For safety regulation, \$6,300,000, or \$10,000 less than the Budget estimate;

For airport advisory service, \$250,000, or \$80,000 below the Budget estimate;

For maintenance and operation of airports, \$1,500,000, a reduction of \$300,000 from the Budget estimate;

For Washington National Airport, \$750,000, or \$6,000 below the Budget proposal.

**CAA Cuts Urged.**—The CAA cutbacks were effected following hearings during which Committee

### Repair Plan OK'd

The House Appropriations Committee's budget recommendation for the Civil Aeronautics Administration included a \$2,355,000 item for the air maintenance of aircraft, a \$93,000 cut from the Budget Bureau estimate.

The cutback in funds was not expected to satisfy aviation groups interested in having the Maintenance Fund out of the aircraft repair business, however. The \$1,500,000 will enable the CAA to set up one major repair base in Oklahoma City for complete servicing of aircraft with the exception of factory engine overhauls, and retain five smaller repair stations at Washington, Kansas City, Los Angeles, Houston and Anchorage.

**Airline Pledged.**—Assistant Secretary of Commerce William A. M. Barron and CAA Administrator T. P. Wright promised the Committee that CAA will (1) start imposing charges for issuance of airmen certificates and for certain other services such as air agency and aircraft airworthiness certificates and the roundabout of surveys involving aircraft; during the latter part of this year and (2) would work out



BOEING XB-44 SUPERFORTRESS

First flight picture of the new high-performance Boeing XB-44 Superfortress, prototype of the forthcoming B-45 now being built at the firm's Wichita plant. Use of P&W 28-cylinder Wasp Major engines steps the XB-44's power up from 4,800 hp in the B-45 to more than 12,000, and jet exhaust stacks further add to the craft's speed. No performance figures have been announced yet.

## Airport Fund Allocation Revealed

Allocation of funds under the seven-year \$20,000,000 airport construction bill on which final congressional action is expected this week will give Texas, New York and California the largest shares—in that order.

The Senate act up provides \$15,000,000 for administration, 23 percent of the remainder to be

supplemented by the Civil Aeronautics Administration and the remainder to the states under a formula based on size and population.

Following at the moment, each state can receive, net, additional amounts ranging from which are obtained from the 10 percent which the CAA can allocate without regard to location.

## Boeing Seeks to Determine Wichita Plant's Tax Status

Boeing has filed application with the Kansas State Commission on Revenue and Taxation asking removal of its No. 1 plant at Wichita from the state tax rolls in an effort to determine the tax status of the government-owned plant and speed termination of Boeing's B-29 supply contract with the Army.

Boeing's forbidding contract with the Defense Plant Council, which holds title to the plant, requires the company to pay all taxes lawfully assessed against the property. The B-29 supply contract provides for reimbursement to the company of all expense, including taxes pertaining to B-29 construction

and motor, \$16,000 in research in airport miles and airfield leveling, and \$160,000 for charts. The right trim of \$10,000 in CAA safety regularity funds was effected by the House committee on the grounds that inspection of aircraft and engines ought to be turned over to the aircraft industry.

## House Group Assails CAA Safety 'Laxity'

The Civil Aeronautics Administration was reprimanded last week by House Appropriations Committee for "negligent or safety regulations" made in the house committee involved.

The main criticism, expressed as a report to the House on the 1947 fiscal year CAA appropriations, was CAA's failure to pin responsibility for an mishap on personnel individuals responsible "should be grounded or relieved of their duties without pay for a specified period of time," the committee statement said.

**"Too Much Drinking"**—We also feel that too much laxity exists with respect to drinking by pilots, as it causes of take-off, not the might be due. Any pilot who has been drinking the night before a flight is not entitled to assume responsibility for a load of passengers the next morning," the report said, adding:

### Miami Base Active

Miami Army Air Field, recently placed on inactive status by the Air Transport Command, has been opened to civilian traffic. At least 60 registered charter and contract carriers have assumed operation or moving to the terminal from the 36th AF. Actual operations during the month which closed the Miami field on one day last week 190 passengers hours for Newark or LaGuardia Field departed by unregistered carriers from the base.

AVIATION NEWS • April 15, 1946

"Public safety must be protected vigilantly and at all costs. It is strongly urged that regulation be drafted to require airline companies to give open and surprise tests to determine the physical fitness of a pilot just before a take-off. It is demanded that such tests could be completed within a few minutes and would have no effect on operating schedules."

## New Aviation Procurement Bill In Last Stage of Preparation

Final draft now before Undersecretary of War for approval before going to Congress; introduction of general measure expected much sooner than previously indicated.

By WILLIAM KROGER

Finalizing of a revised aviation procurement bill for submission to Congress as in its last stages with the first draft up for approval by the Undersecretary of War.

Date of submission of the draft to Congress still depends on the prior submission of a general procurement bill. Aviation News March 16, had intimated that this measure is now in preparation much sooner than contemplated a few weeks ago.

**Parallels Exist**—Believing of the AA's plan to stimulate interest in a greater extent in the development of new methods of war warfare is provided by a unique section which authorizes the giving of scholarships and fellowships to persons "to assist in scientific work in connection with the procurement of implements of war power at educational or scientific institutions for such periods as the Secretary may determine."

One of the most important additions provides for certain Congressional surveillance of the air forces activities under the act, with the chief official—the Army, the Navy, or a new national defense department—called on to submit periodic reports.

**Calculated To Win Support**—The feature of the bill is calculated to win Congressional support and smooth passage.

The distribution of power, which is as greatly desired by both AA and the industry, has been altered, chiefly to attain greater clarity. Although at numerous times of the legislature that would have been given the Secretary in the original version, it is more directly tied in with the specific sections of the bill. The net effect is to give the Secretary wide administrative powers in making experimental and developmental work in the grounds of national interest.

**Would Clearly Define Powers**—Should the aviation procurement bill clear in its present form it also would serve to clarify the many situations regarding which branch of the service is to take the lead in development of guided missiles. The definition of "implements of war power" in the bill is wide enough to include guided missiles.

Although the ground arm of the Army, as represented by Ordnance,

still could develop and possess guided missiles under the terms of the bill, it is pointed out that a Congressional definition of "implements of war power" which by extension includes guided missiles would be a potent weapon that could be employed by AA.

**Cuts in Extravagant Costs**—Believing of the AA's plan to stimulate interest in a greater extent in the development of new methods of war warfare is provided by a unique section which authorizes the giving of scholarships and fellowships to persons "to assist in scientific work in connection with the procurement of implements of war power at educational or scientific institutions for such periods as the Secretary may determine."

The Secretary also would be empowered to make outright grants of funds to persons or educational or scientific institutions to further basic or applied research or experimental engineering.

## U. S. Chamber Backs Transport Integration

The U. S. Chamber of Commerce recommends "extensive" regulation of all interstate and international transportation for haul by a single agency in a report being prepared for submission to the House Interstate and Foreign Commerce Committee, now taking initial steps on an overall transportation policy investigation.

The U. S. Chamber—obviously on record as favoring continued control of the Civil Aeronautics Adminis-

tration of "navigation of transportation" which would permit railroads and steamships, as well as other types of carriers, to operate airlines to be directed by the Chamber, D. proposes that "one form of carrier be permitted to operate another within reasonable territorial limits upon adequate showing that it would be in the public interest and not unduly restrain competition."

Adoption of this policy in the domestic field has been vigorously urged by railroad interests, and in the international field, by steamship interests.

**Cuts in Costs of Transportation**—The Chamber's report points to the need "for promoting better cooperation among different forms of transportation" in the public interest. In addition, it (1) includes several specific proposals for reducing mileage taxation and other special tax burdens on carriers, and (2) calls for the elimination of all state and local regulation of interstate transportation "not essential to the maintenance of life or property."

**Integration Advised**—A policy



ENGINEER TRAINER:

Should the Civil Aeronautics Administration require the licensing of flight engineers as in other countries, Lieutenant General Charles H. Hartung, director of the Civil Aeronautics Administration, which is to be established under the AA, says that the present method of a flight engineer's training will be retained for training such as demand for training and direction of Lockheed's aircraft engine development. The modest flight engineer's job before the panels while as instructor, by remote control, makes him to indicate engine trouble. The student's job is to correct the difficulty or interpret its seriousness from dial readings.



**Purchase Approved:** Air plane of the government-owned plant at Wood-Ridge, N. J., where Wright Aeronautical built more than 18,000 Cyclone 12 engines during the war. War Assets Administration has approved its purchase by the company which intends to manufacture engines elsewhere.

### Wood-Ridge Plant Purchase By Wright Aero Approved

Proposed of Wright Aeronautical to purchase the Wood-Ridge, N. J., plant in which it built more than 18,000 Cyclone 12 aircraft engines for Boeing B-29s will soon be approved by the War Assets Administration since it was recently ap-

proved. G. W. Vassar, president of Curtiss-Wright and Wright Aeronautical, said the purchase would allow the engine division to bring all of its departments together for more efficient operation. In the 30-year plant the company will consolidate manufacturing and office facilities which formerly were located in buildings scattered throughout the Paterson area.

• **Facilities to Be Built**—Aluminum and magnesium foundry facilities which were not included in the plant when it operated as a separate unit of the company will be constructed within the plant area. These are more than \$100,000 in \$6 of floor space in the present manufacturing, assembly and test areas.

### Dr. Moss, GE Engineer, Is Awarded Peens Medal

The Peens Medal of The Franklin Institute has been awarded to Dr. Sanford A. Moss, consulting engineer for the General Electric Co., "in consideration of the extreme value of his work in making a turbosupercharger a successful and reliable part of an internal combustion engine."

The Howard H. Potts Gold Medal was established in 1906 and is awarded for distinguished work in science or the arts, important de-

velopment of precision basic data, invention or problems of superior excellence or unusual importance; principles. Werner, last year was Edwin A. Link, founder of the Link trainer.

### 12 Personal Plane Funds Order GE Two-Way Radios

Twelve personal plane manufacturers have placed orders for two-way radios with General Electric Co., which is manufacturing the sets at the rate of 100 per month.

The sets, previously developed in America News, weighs 11 lbs. and may be removed or replaced in an instrument panel of a plane in 10 seconds. Transmitter and receiver are in the same unit which is about the size of a small box of bread. A separate power supply completes the set. The convenient matching with aircraft has been discussed in favor of a fixed wire antenna.

### Oklahoma Paper Uses Planes

The Oklahoma City Times is the latest newspaper to utilize charter aircraft for delivery. It has signed a three-month experimental contract to transport papers to McAlester, Okla., 125 miles distant.

Delivery is three hours over twice as fast. The service will be extended if successful.

### Erie Gets Magisters

LONDON (McGraw-Hill World News)—The Miles Aircraft Co. has completed delivery of 12 Magister training planes to the Royal Air Force Corps, according to a company announcement. The Portuguese government has ordered 18 planes of the same type.

## Scandinavian Pool To Fly Atlantic

Negotiations are proceeding ahead for the formation of Scandinavian Airlines, to operate on a pool basis the trans-Atlantic services of airlines of Norway, Sweden and Denmark.

Col. Bertil Balchen, a managing director of the Norwegian Airlines (DNA), disclosed at a press conference recently in New York that this pool planned eventually to provide daily service across the Atlantic, stopping at all three Scandinavian capitals in nearly European sequence, however, the lines of the three countries would be separate.

For the pool, which Balchen described as "the most 100 percent complete cooperation" among airlines, he is looking to the west, to Stockholm, where Swedish, Danish and Norwegian would receive the same training. This would conform to CAA regulations.

The pool would be made up of DNA (Det Norske Luftfartsselskap), DNA (Det Danske Luftfartsselskab), and Danish Airway and SIA, the Swedish airline, it is understood.

DNA itself is a new company formed by the founders of the pre-war DNA. A private company owned by several shipping companies, 12 other shipping concerns, and individuals which include stockholders, investors and merchant seafarers, the government and the public. It is to be organized and operating before the end of this month.

For its part in trans-Atlantic operation, DNA is scheduling delivery of two 45-passenger Douglas Skymasters. Far fewer abroad at present to use DC-3s, converted C-47s and 11 Junkers Ju-52-30s transports which were taken over from the Germans and will be used in internal Norwegian services.

### Surplus Display Set

Typical examples of surplus aeronautical property available for educational purposes will be shown to school representatives from 12 southeastern states during a three-day exhibition beginning April 18 at Newark, N. J., by War Assets Administration. Procedures for purchase will be explained and schools may place orders. Those interested in attending should write Educational Aircraft Disposal Division, Office of Aircraft Disposal, War Assets Administration, Washington.

## NAA Will Revamp its Policy, Stress Community Air Activities

Reorientation program, aimed at serving local chapters better, involves dropping of *National Aeromodeler* and publication of new magazine called *Flight Plan*.

An intensification of its activities in the field of community aviation planning was revealed last week by the National Aeromodeling Association in announcing that its official magazine, *National Aeromodeler*, would undergo a complete revision of editorial content and format and be issued under a new name.

Stated that and other moves contemplated by NAA is the changed status of aviation aviation since the end of the war. A statement by Manager Lowell R. Sorenson explained that the reduction of aircraft in the country during the war had shown a reorganization by NAA on national and international lines of its widespread. Now, with local section activity increasing, the Association feels a need to act as a coordinator of that activity and as a liaison agency between the several hundred NAA chapters.

• **Details of New Plan**—The new magazine, titled *Flight Plan*, will feature information of immediate practical value to local organizations and municipalities and relate case history experiences of NAA chapters.

To further the aims of serving

### New Attack Plane

One of the new long-range aircraft recently the Canadian-estimated XA-41, single-seat fighter-bomber which had been first flown in January, 1948, has been announced, although some details still are hidden.

Production of the plane was undertaken for development of the XP-85 long-range jet fighter.

• **Performance Well**—The XA-41 was seized by the AFM had managed to Pratt & Whitney for testing new engine installations showed promising performance within its range of 800 miles. It carried four 500-lb. bombs and had a fuel capacity of 1,600 lbs. Top speed was listed at 565 mph and the plane had a service ceiling of 38,000 feet.

## CAA Offers to Help Check GI Schools

Administrator T. F. Wright last week offered state governors the cooperation of CAA in issuing minimum safety standards for flight schools which provide training for veterans under the GI Bill of Rights.

In effect, Wright invited the governors to adopt the CAA minimum standards as the basis for presenting state approved the flight schools must have before they can obtain veterans training contracts. A number of states already have adopted this basis for approval.

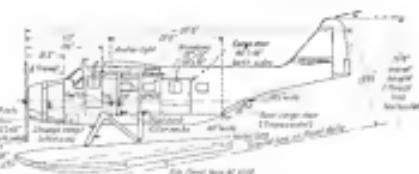
• **Pledge Quick Action**—This administration will do everything possible to assist prompt adoption in

### Advice to Veterans

A realistic viewpoint of systematic training for veterans was offered last week by Civil Aviation Administrator T. F. Wright who said:

"CAA's only interest is to foster the sound development of civil aviation. Naturally we want to see thousands of persons learn to fly as they undoubtedly will be required to do in accordance to the GI Bill of Rights. We want these veterans to become boosters for aviation, however, not disinterested critics."

"This is my advice to veterans: If you want to fly as a hobby get the safest and best training you can at reasonable cost. If you want to earn your living in aviation check your employment opportunities carefully before you start. Get trained in a field which may cost a large part of or even more than your full entitlement under the GI Bill of Rights."



**New Bomber Freighter**: Details of the new T-33A Husky which will be put down next week by Fairchild Aircraft of Canada are shown in this design drawing. (Story on Page 18)



## PERSONNEL

### R. W. Darrow Appointed Marlin Publicity Head

**Richard W. Darrow** (photo) has been appointed director of public relations for the Glavin L. Martin Co., marketing agency.

**Arthur H. Miller** who has come to Howell to head the new Arthur H. Miller Corp. there, formerly was assistant director of public relations for Curtiss-Wright Corp.

Wright Corp. in New York and former manager of public relations for the Columbia phenyl.

**Major E. C. Schulte** has returned to the Civil Aeronautics Administration in his former job as jet engine specialist with the Bureau of Aircraft Standardization. While in the Army he spent several months at Germany with Army Air Technical Intelligence obtaining data from German aircraft.

**Paul R. Kishkin**, executive vice-president of Transoceanic & Western Air, Inc., who was placed on the inactive list as a captain in the naval reserves, has been awarded the Legion of Merit.

**Joe E. Bell** has been named vice-president in charge of merchandising of Pan Am Auxiliary Corp., Glendale. He had been with B. F. Goodrich as West Coast manager of the promotional and educational division.

**William B. Briggs** has been named managing director of Atlantic Airlines, Inc. He will be based at Boston. He also supervises all commercial flights, has been director of public relations for Lufthansa Airlines, assistant to the first vice-president of Eastern Air Lines, and more recently was president in charge of trademarks for Northwest Airlines.

**Stanley A. Holberg** (photo) who has been executive assistant to the manager of the Adelco-Detroit division, has been named press representative and manager of the Atlanta division of Pan American Airways. Holberg was with the Associated Press and then did publicity for American & Co. He went to Pan Am from the Ludwick School of Advertising where he was vice-president.

**Karl H. Lessig** has resigned as press manager of the Curtiss-Wright Corp.'s engine division in Buffalo to become production engineer of the

**H. C. Williams**, formerly with Western Air Lines in Los Angeles, has been named superintendent of expansion and management for Panhandle Northern Airlines, Atlanta.

**L. W. Rose** has been named vice-president and director of maintenance for Eastern Air Freight Corp. He formerly was senior field representative of the Douglas Aircraft Corp. and had been with Douglas since 1939.

**Daniel L. Shander** has replaced Eastern Air Lines, Inc., as New York district manager after serving in the AAC. His successor **James P. Frazee** who has become Eastern's district manager in Boston.

**Colonial Airlines**, Inc., has appointed **Bernard E. Sternfeld** as personnel director. **Sigmund James**, Jr., of New York, sales manager, **Jack T. Johnson**, of Atlanta, and **John J. Hansen**, Jr., director of the stow bureau, **Frederick Gruener**, supervisor of traffic sales and **Monroe C. Gould**, as controller of air freight.

**Ralph E. Mikson** (photo) has been named supervisor of training for Mid-Continent Airlines and **William Walker**, formerly chief pilot and supervisor for Mid-Continent, has been named training supervisor. **Willard C. Johnson**, former chairman of the board, now has a flying service with American Airlines and **Brenton** Aeroways.

**Fred F. Bradley** has been named chief pilot for Continental Air Lines. **Marguerite Hugo** will be having an affair in Denver under the new arrangement. **Stanley Forman** in Tulsa and **Marion Stiles** in San Antonio.

**Mac Goo**, **Elmer E. Adler**, vice-president and general manager of Aerovias Brasil, S.A., has received the Distinguished Service Medal for his achievements as director of personnel and human resources and commanding general of the Technical Air Command.

**George Hosen**, formerly public relations and advertising chief of PCA and on the public relations staff of United Air Lines, has been named director of information for American Locomotive Co., located at 30 Church St., New York.

**Karl H. Lessig** has resigned as press manager of the Curtiss-Wright Corp.'s engine division in Buffalo to become production engineer of the



### DSM AWARDED GATES:

**Cal Samuel E. Gates**, right, Washington attorney, is awarded the Distinguished Service Medal by Lt. Gen. Harold L. George ATC commander, for his performance as assistant ATC chief of staff, plus, in charge of organizational planning and organization and conduct his persuasion. Prior to the war Cal Gates was international counsel for the Civil Aeronautics Board. He was War Department counsel to the Bermuda commandant conference.

Two Coach Cal's new Buffalo drivers. He joined Curtiss-Wright in 1930. **Nelson M. Hopkins** also has renamed from Curtiss-Wright where he was performance agent for manufacturers at the Buffalo plant to become assistant sales manager for the Koenig & Baum Co., Syracuse.

### TELLING THE WORLD

• **Fred F. Bradley** has been named chief pilot for Continental Air Lines. **Marguerite Hugo** will be having an affair in Denver under the new arrangement. **Stanley Forman** in Tulsa and **Marion Stiles** in San Antonio.

**Charles H. Gidley**, Inc., has

been

named

as

as

as

as

as

as

as

as

assistant manager for Piper Aircraft Corp. with William D. Gobomber, veteran pilot and aircraft engineer. Before the war Gidley had been pilot and chief engineer for Piper. He is a well-known aviation writer.

• **Horace Gremillion**, Alvey Corp. has published a brochure, "Airline In America," which tells the story of BOAC as part of its literature.

• **United Air Lines** has initiated an incentive campaign to publicize its newly-inaugurated "Hourly-on-the-hour" MacMail service between San Francisco and Los Angeles. The theme is "Four Words Is Your Troubles" - "We're On It" & "Be On Time."

• **Hawker & Curtis**, New York, has just taken over the account of Registered Travel Service for the "Private Flyer," a New York firm.



## Silver Service



From Martha's to the Rio Grande . . . from the Great Lakes to the Florida Keys . . . the Great Silver Fleet weaves a network of swift service over half the nation. Now Eastern Air Lines knits the texture even closer with Lockheed Constellations, powered with Cyclones built by Wright Aeronautical.

**WRIGHT** *Aircraft Engines*



## Bags for gasoline make flying cheaper

To eat bullets and add the bullet hole was the wartime purpose of soldier fuel cells. But during the war it was discovered that these cells also prevented the leakage through the skin which often happened in metal gasoline compartments, sealed by several layers of sheeting. This would mean savings of hours of maintenance for top airmen and in use of the money helping to make today's flight cost less.

So today's airmen are profiting by this wartime lesson. B. F. Goodrich is making thin-walled rubber bags which have the fuel compartment so solid a new factor of safety to planes and combat!

survive. In the present, one of these new cells is being modified in a new Douglas airplane.

B. F. Goodrich has developed bladder cells covering weight and strength requirements for all types of aircraft. A paper that took would fit comfortably for relatively small gas loads which would not be subject to much shaking while heavier loads would be necessary for the larger volume loads. However, as loads increase, the relative weight of the tank decreases.

In lower design, bladder cells should be designed over one stage, but it should not be assumed that the cells cannot be

adapted to ships now flying. They can, and B. F. Goodrich engineers are equipped to show you how. For further information, write to The B. F. Goodrich Company, Aeronautical Division, Akron, Ohio.

*Safety at Highways*  
**B.F.Goodrich**  
FIRST IN RUBBER

## PRODUCTION

### Fairchild of Canada is Building New Single-Engine Bush Freighter

7-place Husky, based on results of questionnaire circulated among operators, will sell for about \$33,000 (Canadian) equipped with interchangeable wheels, skis and floats; test set for next week.

Another small single-engined bush freighter, the F-11 Marks being built by Fairchild Aircraft Ltd. at Longueuil, Que., a suburb of Montreal, is scheduled for test flights within the next week.

A. M. McGehee, test pilot and sales engineer of the company, said first deliveries are planned late in June or early July. The plane will sell with skis, wheels and floats and used engines for about \$18,800 (Canadian).

► **Based on Questionnaire.** — The aircraft was designed as the result of a questionnaire to representatives Canadian air transport operators to determine requirements for post-war commercial airships.

A large majority of the operators wanted a simple engine, high wing ground clearance, and a hull which would pay payload as at the present Fairchild T1 and G2, but with improved economy of operation and performance, especially on floats.

► **All-Metal Construction.** — The Husky is all-metal construction. It can be operated on wheels, floats or skis, and is readily convertible from one to the other. For land operations, a fixed tricycle landing gear is provided.

While float models will have conventional ski landing gear, later models are to be provided with those fitted directly onto the underside float chassis, eliminating tail skid entirely. This arrangement has advantages of level cabin floor, improved visibility for landing, easier maneuverability, cheaper cost and reduced loads on airframe structure.

► **Cabin Details.** — Cabin of the Husky measures 85 ft in length and end to draft curtain at front edge of rear loading door. It can take two 45-GT canisters or one 16-GT canister. Cabin height is 5 ft. 1 1/2 in. Total cabin volume is more than 26 cu. ft.

It has five doors—port and vice-

## Surplus Engine Sale

More than 2,000 surplus new aircraft engines have been put on sale by War Assets Administration on semi-contract basis. The engines range from 45 to 1,500 hp and are classified:

► **Continental O-190 3-cyl 160-hp 10-lb. per cu. in. 40 hr. 2 continental**  
► **O-200 3-cyl 180-hp 10-lb. per cu. in. 40 hr. 2 continental**  
► **Continental R-985-14 40 hr. 2大陆**  
► **R-985-15 40 hr. 2大陆**  
► **R-985-16 40 hr. 2大陆**  
► **R-985-17 40 hr. 2大陆**  
► **R-985-18 40 hr. 2大陆**  
► **R-985-19 40 hr. 2大陆**  
► **R-985-20 40 hr. 2大陆**  
► **R-985-21 40 hr. 2大陆**  
► **R-985-22 40 hr. 2大陆**  
► **R-985-23 40 hr. 2大陆**  
► **R-985-24 40 hr. 2大陆**  
► **R-985-25 40 hr. 2大陆**  
► **R-985-26 40 hr. 2大陆**  
► **R-985-27 40 hr. 2大陆**  
► **R-985-28 40 hr. 2大陆**  
► **R-985-29 40 hr. 2大陆**  
► **R-985-30 40 hr. 2大陆**  
► **R-985-31 40 hr. 2大陆**  
► **R-985-32 40 hr. 2大陆**  
► **R-985-33 40 hr. 2大陆**  
► **R-985-34 40 hr. 2大陆**  
► **R-985-35 40 hr. 2大陆**  
► **R-985-36 40 hr. 2大陆**  
► **R-985-37 40 hr. 2大陆**  
► **R-985-38 40 hr. 2大陆**  
► **R-985-39 40 hr. 2大陆**  
► **R-985-40 40 hr. 2大陆**  
► **R-985-41 40 hr. 2大陆**  
► **R-985-42 40 hr. 2大陆**  
► **R-985-43 40 hr. 2大陆**  
► **R-985-44 40 hr. 2大陆**  
► **R-985-45 40 hr. 2大陆**  
► **R-985-46 40 hr. 2大陆**  
► **R-985-47 40 hr. 2大陆**  
► **R-985-48 40 hr. 2大陆**  
► **R-985-49 40 hr. 2大陆**  
► **R-985-50 40 hr. 2大陆**  
► **R-985-51 40 hr. 2大陆**  
► **R-985-52 40 hr. 2大陆**  
► **R-985-53 40 hr. 2大陆**  
► **R-985-54 40 hr. 2大陆**  
► **R-985-55 40 hr. 2大陆**  
► **R-985-56 40 hr. 2大陆**  
► **R-985-57 40 hr. 2大陆**  
► **R-985-58 40 hr. 2大陆**  
► **R-985-59 40 hr. 2大陆**  
► **R-985-60 40 hr. 2大陆**  
► **R-985-61 40 hr. 2大陆**  
► **R-985-62 40 hr. 2大陆**  
► **R-985-63 40 hr. 2大陆**  
► **R-985-64 40 hr. 2大陆**  
► **R-985-65 40 hr. 2大陆**  
► **R-985-66 40 hr. 2大陆**  
► **R-985-67 40 hr. 2大陆**  
► **R-985-68 40 hr. 2大陆**  
► **R-985-69 40 hr. 2大陆**  
► **R-985-70 40 hr. 2大陆**  
► **R-985-71 40 hr. 2大陆**  
► **R-985-72 40 hr. 2大陆**  
► **R-985-73 40 hr. 2大陆**  
► **R-985-74 40 hr. 2大陆**  
► **R-985-75 40 hr. 2大陆**  
► **R-985-76 40 hr. 2大陆**  
► **R-985-77 40 hr. 2大陆**  
► **R-985-78 40 hr. 2大陆**  
► **R-985-79 40 hr. 2大陆**  
► **R-985-80 40 hr. 2大陆**  
► **R-985-81 40 hr. 2大陆**  
► **R-985-82 40 hr. 2大陆**  
► **R-985-83 40 hr. 2大陆**  
► **R-985-84 40 hr. 2大陆**  
► **R-985-85 40 hr. 2大陆**  
► **R-985-86 40 hr. 2大陆**  
► **R-985-87 40 hr. 2大陆**  
► **R-985-88 40 hr. 2大陆**  
► **R-985-89 40 hr. 2大陆**  
► **R-985-90 40 hr. 2大陆**  
► **R-985-91 40 hr. 2大陆**  
► **R-985-92 40 hr. 2大陆**  
► **R-985-93 40 hr. 2大陆**  
► **R-985-94 40 hr. 2大陆**  
► **R-985-95 40 hr. 2大陆**  
► **R-985-96 40 hr. 2大陆**  
► **R-985-97 40 hr. 2大陆**  
► **R-985-98 40 hr. 2大陆**  
► **R-985-99 40 hr. 2大陆**  
► **R-985-100 40 hr. 2大陆**  
► **R-985-101 40 hr. 2大陆**  
► **R-985-102 40 hr. 2大陆**  
► **R-985-103 40 hr. 2大陆**  
► **R-985-104 40 hr. 2大陆**  
► **R-985-105 40 hr. 2大陆**  
► **R-985-106 40 hr. 2大陆**  
► **R-985-107 40 hr. 2大陆**  
► **R-985-108 40 hr. 2大陆**  
► **R-985-109 40 hr. 2大陆**  
► **R-985-110 40 hr. 2大陆**  
► **R-985-111 40 hr. 2大陆**  
► **R-985-112 40 hr. 2大陆**  
► **R-985-113 40 hr. 2大陆**  
► **R-985-114 40 hr. 2大陆**  
► **R-985-115 40 hr. 2大陆**  
► **R-985-116 40 hr. 2大陆**  
► **R-985-117 40 hr. 2大陆**  
► **R-985-118 40 hr. 2大陆**  
► **R-985-119 40 hr. 2大陆**  
► **R-985-120 40 hr. 2大陆**  
► **R-985-121 40 hr. 2大陆**  
► **R-985-122 40 hr. 2大陆**  
► **R-985-123 40 hr. 2大陆**  
► **R-985-124 40 hr. 2大陆**  
► **R-985-125 40 hr. 2大陆**  
► **R-985-126 40 hr. 2大陆**  
► **R-985-127 40 hr. 2大陆**  
► **R-985-128 40 hr. 2大陆**  
► **R-985-129 40 hr. 2大陆**  
► **R-985-130 40 hr. 2大陆**  
► **R-985-131 40 hr. 2大陆**  
► **R-985-132 40 hr. 2大陆**  
► **R-985-133 40 hr. 2大陆**  
► **R-985-134 40 hr. 2大陆**  
► **R-985-135 40 hr. 2大陆**  
► **R-985-136 40 hr. 2大陆**  
► **R-985-137 40 hr. 2大陆**  
► **R-985-138 40 hr. 2大陆**  
► **R-985-139 40 hr. 2大陆**  
► **R-985-140 40 hr. 2大陆**  
► **R-985-141 40 hr. 2大陆**  
► **R-985-142 40 hr. 2大陆**  
► **R-985-143 40 hr. 2大陆**  
► **R-985-144 40 hr. 2大陆**  
► **R-985-145 40 hr. 2大陆**  
► **R-985-146 40 hr. 2大陆**  
► **R-985-147 40 hr. 2大陆**  
► **R-985-148 40 hr. 2大陆**  
► **R-985-149 40 hr. 2大陆**  
► **R-985-150 40 hr. 2大陆**  
► **R-985-151 40 hr. 2大陆**  
► **R-985-152 40 hr. 2大陆**  
► **R-985-153 40 hr. 2大陆**  
► **R-985-154 40 hr. 2大陆**  
► **R-985-155 40 hr. 2大陆**  
► **R-985-156 40 hr. 2大陆**  
► **R-985-157 40 hr. 2大陆**  
► **R-985-158 40 hr. 2大陆**  
► **R-985-159 40 hr. 2大陆**  
► **R-985-160 40 hr. 2大陆**  
► **R-985-161 40 hr. 2大陆**  
► **R-985-162 40 hr. 2大陆**  
► **R-985-163 40 hr. 2大陆**  
► **R-985-164 40 hr. 2大陆**  
► **R-985-165 40 hr. 2大陆**  
► **R-985-166 40 hr. 2大陆**  
► **R-985-167 40 hr. 2大陆**  
► **R-985-168 40 hr. 2大陆**  
► **R-985-169 40 hr. 2大陆**  
► **R-985-170 40 hr. 2大陆**  
► **R-985-171 40 hr. 2大陆**  
► **R-985-172 40 hr. 2大陆**  
► **R-985-173 40 hr. 2大陆**  
► **R-985-174 40 hr. 2大陆**  
► **R-985-175 40 hr. 2大陆**  
► **R-985-176 40 hr. 2大陆**  
► **R-985-177 40 hr. 2大陆**  
► **R-985-178 40 hr. 2大陆**  
► **R-985-179 40 hr. 2大陆**  
► **R-985-180 40 hr. 2大陆**  
► **R-985-181 40 hr. 2大陆**  
► **R-985-182 40 hr. 2大陆**  
► **R-985-183 40 hr. 2大陆**  
► **R-985-184 40 hr. 2大陆**  
► **R-985-185 40 hr. 2大陆**  
► **R-985-186 40 hr. 2大陆**  
► **R-985-187 40 hr. 2大陆**  
► **R-985-188 40 hr. 2大陆**  
► **R-985-189 40 hr. 2大陆**  
► **R-985-190 40 hr. 2大陆**  
► **R-985-191 40 hr. 2大陆**  
► **R-985-192 40 hr. 2大陆**  
► **R-985-193 40 hr. 2大陆**  
► **R-985-194 40 hr. 2大陆**  
► **R-985-195 40 hr. 2大陆**  
► **R-985-196 40 hr. 2大陆**  
► **R-985-197 40 hr. 2大陆**  
► **R-985-198 40 hr. 2大陆**  
► **R-985-199 40 hr. 2大陆**  
► **R-985-200 40 hr. 2大陆**  
► **R-985-201 40 hr. 2大陆**  
► **R-985-202 40 hr. 2大陆**  
► **R-985-203 40 hr. 2大陆**  
► **R-985-204 40 hr. 2大陆**  
► **R-985-205 40 hr. 2大陆**  
► **R-985-206 40 hr. 2大陆**  
► **R-985-207 40 hr. 2大陆**  
► **R-985-208 40 hr. 2大陆**  
► **R-985-209 40 hr. 2大陆**  
► **R-985-210 40 hr. 2大陆**  
► **R-985-211 40 hr. 2大陆**  
► **R-985-212 40 hr. 2大陆**  
► **R-985-213 40 hr. 2大陆**  
► **R-985-214 40 hr. 2大陆**  
► **R-985-215 40 hr. 2大陆**  
► **R-985-216 40 hr. 2大陆**  
► **R-985-217 40 hr. 2大陆**  
► **R-985-218 40 hr. 2大陆**  
► **R-985-219 40 hr. 2大陆**  
► **R-985-220 40 hr. 2大陆**  
► **R-985-221 40 hr. 2大陆**  
► **R-985-222 40 hr. 2大陆**  
► **R-985-223 40 hr. 2大陆**  
► **R-985-224 40 hr. 2大陆**  
► **R-985-225 40 hr. 2大陆**  
► **R-985-226 40 hr. 2大陆**  
► **R-985-227 40 hr. 2大陆**  
► **R-985-228 40 hr. 2大陆**  
► **R-985-229 40 hr. 2大陆**  
► **R-985-230 40 hr. 2大陆**  
► **R-985-231 40 hr. 2大陆**  
► **R-985-232 40 hr. 2大陆**  
► **R-985-233 40 hr. 2大陆**  
► **R-985-234 40 hr. 2大陆**  
► **R-985-235 40 hr. 2大陆**  
► **R-985-236 40 hr. 2大陆**  
► **R-985-237 40 hr. 2大陆**  
► **R-985-238 40 hr. 2大陆**  
► **R-985-239 40 hr. 2大陆**  
► **R-985-240 40 hr. 2大陆**  
► **R-985-241 40 hr. 2大陆**  
► **R-985-242 40 hr. 2大陆**  
► **R-985-243 40 hr. 2大陆**  
► **R-985-244 40 hr. 2大陆**  
► **R-985-245 40 hr. 2大陆**  
► **R-985-246 40 hr. 2大陆**  
► **R-985-247 40 hr. 2大陆**  
► **R-985-248 40 hr. 2大陆**  
► **R-985-249 40 hr. 2大陆**  
► **R-985-250 40 hr. 2大陆**  
► **R-985-251 40 hr. 2大陆**  
► **R-985-252 40 hr. 2大陆**  
► **R-985-253 40 hr. 2大陆**  
► **R-985-254 40 hr. 2大陆**  
► **R-985-255 40 hr. 2大陆**  
► **R-985-256 40 hr. 2大陆**  
► **R-985-257 40 hr. 2大陆**  
► **R-985-258 40 hr. 2大陆**  
► **R-985-259 40 hr. 2大陆**  
► **R-985-260 40 hr. 2大陆**  
► **R-985-261 40 hr. 2大陆**  
► **R-985-262 40 hr. 2大陆**  
► **R-985-263 40 hr. 2大陆**  
► **R-985-264 40 hr. 2大陆**  
► **R-985-265 40 hr. 2大陆**  
► **R-985-266 40 hr. 2大陆**  
► **R-985-267 40 hr. 2大陆**  
► **R-985-268 40 hr. 2大陆**  
► **R-985-269 40 hr. 2大陆**  
► **R-985-270 40 hr. 2大陆**  
► **R-985-271 40 hr. 2大陆**  
► **R-985-272 40 hr. 2大陆**  
► **R-985-273 40 hr. 2大陆**  
► **R-985-274 40 hr. 2大陆**  
► **R-985-275 40 hr. 2大陆**  
► **R-985-276 40 hr. 2大陆**  
► **R-985-277 40 hr. 2大陆**  
► **R-985-278 40 hr. 2大陆**  
► **R-985-279 40 hr. 2大陆**  
► **R-985-280 40 hr. 2大陆**  
► **R-985-281 40 hr. 2大陆**  
► **R-985-282 40 hr. 2大陆**  
► **R-985-283 40 hr. 2大陆**  
► **R-985-284 40 hr. 2大陆**  
► **R-985-285 40 hr. 2大陆**  
► **R-985-286 40 hr. 2大陆**  
► **R-985-287 40 hr. 2大陆**  
► **R-985-288 40 hr. 2大陆**  
► **R-985-289 40 hr. 2大陆**  
► **R-985-290 40 hr. 2大陆**  
► **R-985-291 40 hr. 2大陆**  
► **R-985-292 40 hr. 2大陆**  
► **R-985-293 40 hr. 2大陆**  
► **R-985-294 40 hr. 2大陆**  
► **R-985-295 40 hr. 2大陆**  
► **R-985-296 40 hr. 2大陆**  
► **R-985-297 40 hr. 2大陆**  
► **R-985-298 40 hr. 2大陆**  
► **R-985-299 40 hr. 2大陆**  
► **R-985-300 40 hr. 2大陆**  
► **R-985-301 40 hr. 2大陆**  
► **R-985-302 40 hr. 2大陆**  
► **R-985-303 40 hr. 2大陆**  
► **R-985-304 40 hr. 2大陆**  
► **R-985-305 40 hr. 2大陆**  
► **R-985-306 40 hr. 2大陆**  
► **R-985-307 40 hr. 2大陆**  
► **R-985-308 40 hr. 2大陆**  
► **R-985-309 40 hr. 2大陆**  
► **R-985-310 40 hr. 2大陆**  
► **R-985-311 40 hr. 2大陆**  
► **R-985-312 40 hr. 2大陆**  
► **R-985-313 40 hr. 2大陆**  
► **R-985-314 40 hr. 2大陆**  
► **R-985-315 40 hr. 2大陆**  
► **R-985-316 40 hr. 2大陆**  
► **R-985-317 40 hr. 2大陆**  
► **R-985-318 40 hr. 2大陆**  
► **R-985-319 40 hr. 2大陆**  
► **R-985-320 40 hr. 2大陆**  
► **R-985-321 40 hr. 2大陆**  
► **R-985-322 40 hr. 2大陆**  
► **R-985-323 40 hr. 2大陆**  
► **R-985-324 40 hr. 2大陆**  
► **R-985-325 40 hr. 2大陆**  
► **R-985-326 40 hr. 2大陆**  
► **R-985-327 40 hr. 2大陆**  
► **R-985-328 40 hr. 2大陆**  
► **R-985-329 40 hr. 2大陆**  
► **R-985-330 40 hr. 2大陆**  
► **R-985-331 40 hr. 2大陆**  
► **R-985-332 40 hr. 2大陆**  
► **R-985-333 40 hr. 2大陆**  
► **R-985-334 40 hr. 2大陆**  
► **R-985-335 40 hr. 2大陆**  
► **R-985-336 40 hr. 2大陆**  
► **R-985-337 40 hr. 2大陆**  
► **R-985-338 40 hr. 2大陆**  
► **R-985-339 40 hr. 2大陆**  
► **R-985-340 40 hr. 2大陆**  
► **R-985-341 40 hr. 2大陆**  
► **R-985-342 40 hr. 2大陆**  
► **R-985-343 40 hr. 2大陆**  
► **R-985-344 40 hr. 2大陆**  
► **R-985-345 40 hr. 2大陆**  
► **R-985-346 40 hr. 2大陆**  
► **R-985-347 40 hr. 2大陆**  
► **R-985-348 40 hr. 2大陆**  
► **R-985-349 40 hr. 2大陆**  
► **R-985-350 40 hr. 2大陆**  
► **R-985-351 40 hr. 2大陆**  
► **R-985-352 40 hr. 2大陆**  
► **R-985-353 40 hr. 2大陆**  
► **R-985-354 40 hr. 2大陆**  
► **R-985-355 40 hr. 2大陆**  
► **R-985-356 40 hr. 2大陆**  
► **R-985-357 40 hr. 2大陆**  
► **R-985-358 40 hr. 2大陆**  
► **R-985-359 40 hr. 2大陆**  
► **R-985-360 40 hr. 2大陆**  
► **R-985-361 40 hr. 2大陆**  
► **R-985-362 40 hr. 2大陆**  
► **R-985-363 40 hr. 2大陆**  
► **R-985-364 40 hr. 2大陆**  
► **R-985-365 40 hr. 2大陆**  
► **R-985-366 40 hr. 2大陆**  
► **R-985-367 40 hr. 2大陆**  
► **R-985-368 40 hr. 2大陆**  
► **R-985-369 40 hr. 2大陆**  
► **R-985-370 40 hr. 2大陆**  
► **R-985-371 40 hr. 2大陆**  
► **R-985-372 40 hr. 2大陆**  
► **R-985-373 40 hr. 2大陆**  
► **R-985-374 40 hr. 2大陆**  
► **R-985-375 40 hr. 2大陆**  
► **R-985-376 40 hr. 2大陆**  
► **R-985-377 40 hr. 2大陆**  
► **R-985-378 40 hr. 2大陆**  
► **R-985-379 40 hr. 2大陆**  
► **R-985-380 40 hr. 2大陆**  
► **R-985-381 40 hr. 2大陆**  
► **R-985-382 40 hr. 2大陆**  
► **R-985-383 40 hr. 2大陆**  
► **R-985-384 40 hr. 2大陆**  
► **R-985-385 40 hr. 2大陆**  
► **R-985-386 40 hr. 2大陆**  
► **R-985-387 40 hr. 2大陆**  
► **R-985-388 40 hr. 2大陆**  
► **R-985-389 40 hr. 2大陆**  
► **R-985-390 40 hr. 2大陆**  
► **R-985-391 40 hr. 2大陆**  
► **R-985-392 40 hr. 2大陆**  
► **R-985-393 40 hr. 2大陆**  
► **R-985-394 40 hr. 2大陆**  
► **R-985-395 40 hr. 2大陆**  
► **R-985-396 40 hr. 2大陆**  
► **R-985-397 40 hr. 2大陆**  
► **R-985-398 40 hr. 2大陆**  
► **R-985-399 40 hr. 2大陆**  
► **R-985-400 40 hr. 2大陆**  
► **R-985-401 40 hr. 2大陆**  
► **R-985-402 40 hr. 2大陆**  
► **R-985-403 40 hr. 2大陆**  
► **R-985-404 40 hr. 2大陆**  
► **R-985-405 40 hr. 2大陆**  
► **R-985-406 40 hr. 2大陆**  
► **R-985-407 40 hr. 2大陆**  
► **R-985-408 40 hr. 2大陆**  
► **R-985-409 40 hr. 2大陆**  
► **R-985-410 40 hr. 2大陆**  
► **R-985-411 40 hr. 2大陆**  
► **R-985-412 40 hr. 2大陆**  
► **R-985-413 40 hr. 2大陆**  
► **R-985-414 40 hr. 2大陆**  
► **R-985-415 40 hr. 2大陆**  
► **R-985-416 40 hr. 2大陆**  
► **R-985-417 40 hr. 2大陆**  
► **R-985-418 40 hr. 2大陆**  
► **R-985-419 40 hr. 2大陆**  
► **R-985-420 40 hr. 2大陆**  
► **R-985-421 40 hr. 2大陆**  
► **R-985-422 40 hr. 2大陆**  
► **R-985-423 40 hr. 2大陆**  
► **R-985-424 40 hr. 2大陆**  
► **R-985-425 40 hr. 2大陆**  
► **R-985-426 40 hr. 2大陆**  
► **R-985-427 40 hr. 2大陆**  
► **R-985-428 40 hr. 2大陆**  
► **R-985-429 40 hr. 2大陆**  
► **R-985-430 40 hr. 2大陆**  
► **R-985-431 40 hr. 2大陆**  
► **R-985-432 40 hr. 2大陆**  
► **R-985-433 40 hr. 2大陆**  
► **R-985-434 40 hr. 2大陆**  
► **R-985-435 40 hr. 2大陆**  
► **R-985-436 40 hr. 2大陆**  
► **R-985-437 40 hr. 2大陆**  
► **R-985-438 40 hr. 2大陆**  
► **R-985-439 40 hr. 2大陆**  
► **R-985-440 40 hr. 2大陆**  
► **R-985-441 40 hr. 2大陆**  
► **R-985-442 40 hr. 2大陆**  
► **R-985-443 40 hr. 2大陆**  
► **R-985**

its overall length of 25½ ft., a maximum gross weight of 2,640 lbs. at a wingspan of 6,650 ft., a maximum speed of about 143 mph., cruising speed of about 120 mph., payload in a passenger cabin of about 2,900 lbs. The Powerplant is new or used Pratt & Whitney Wasp 650 or 710.

## 'Sandwich' Materials Under Test at Boeing

Boeing engineers are investigating a sandwich-type aircraft material composed of thin sheets of high strength, lightweight alloy "filled" with some medium density material.

The result, according to Wellwood K. Bell, engineering and sales vice-president, will be a type of aircraft structure that will approach true monocoque—or shell-construction, incorporated by such weight-saving members as today's conventional bulkheads, longitudinal stiffeners, transverse stiffeners and stiffeners. Under investigation as now, the aircraft sandwich are balsa wood, foamed hard rubber, fibreglass laminates, glass fibre, plywood, cork and various plastic resins.

**Ahead At New Places.**—The sandwich is one of a number of "naturally" new structural materials and techniques that are being developed for advanced aircraft designed to travel at very great speeds. Bell said. The aluminum, he added, will not be all-aluminum, all-plywood or all-X-material airplane since each material has its own unique application and will be selected on the basis of availability for the specific job.

**Problems Gid.**—Among the problems listed by Bell with which the structures expert, along with the aerodynamicist and the propulsion engineer—must cope during the next ten years are fracture-resistant high temperatures and high pressures, temperature changes due to accelerations of great magnitude, insulation against rays not filtered out by the earth's atmosphere, and strength to withstand possible collision with cosmic bodies and jets.

## Swedish Firm Converting

**GÖTEBORG** (McGraw-Hill World News)—Rapidly converting to commercial production, the Swedish Airplane Co., whose native output was devoted to the

## Iridium Bearings Highly Successful

Iridium-treated bearings, a secret weapons development only now revealed, have been standardized in aircraft engine requirements after demonstrating superiority over titanium-nickel-copper bearings in lengths of operation in high-power rocket and transport planes of the Army and Navy.

In William S. Murray, president of the Indian Corp. of America, is credited with the development of this new silver-telluride combination.

**Fatigue Explained.**—The silver has properties which resist failure due to fatigue but lacks the stiffness needed in a good bearing surface. To fill that requirement, a thin layer of lead is applied to the silver surface. But lead is soluble in the atomic scale present or formed in lubricating oil so a thin layer of oxidized or spinelized lead increases the strength of the bearing material, reduces friction and polishing the bearing surface to retain its oil completely.

The rare element, named for its indigo-blue spectrum, was discovered in 1863 by two German chemists, Rosch and Richter, but its commercial possibilities were not realized until 1932 when Dr. Murray first began experiments. A soft, silvery metal and unlike platinum in appearance, it is applied to aircraft engine bearings by electroplating followed by an oven or salt-bath treatment for about two hours at 880 deg. F. which is slightly higher than its melting point.

## Stockholders Approve Dissolution of Brewster

Dissolution of Brewster Aircraft Corp. has been voted by the stockholders, 607,614 to 4378. The 344,321 outstanding shares have a book value of \$4.95 each. Preston Leekford, president, declared, but the worth may be slightly less than book value.

The corporation ceased all manufacturing activities last December, after a money variance had been held by labor and production difficulties. In dividing to such the stockholders' equities in dissolution some time ago, the director stated that prospects for the future did not warrant continuation in the aircraft business and that the corporation had no experience in other industrial activity.

**Adjustable Ramps.**—This lightweight, aluminum alloy passenger loading ramp being produced by Glenn L. Martin Co. can be adjusted so that the top platform is at a level with the door sill of practically any transport plane now in use or planned for the near future.

## New Adjustable Ramp Manufactured by Martin

A passenger loading ramp, adjustable to match door sill ranging from 38 to 128 inches off the ground, is being manufactured by Glenn L. Martin Co., Baltimore, Md. With several different types of aircraft coming into use, Martin engineers designed the ramp for use at fields served by various models of transport planes.

Of aluminum alloy, the ramp is mounted on wheels, can be folded into a horizontal position in which the overall height is less than four feet. All steps have the same height except the safety, but the number of steps can be varied from 11 to 18.

Martin is also constructing several versions of circular-type passenger ramps for use with converted C-47s.



This lightweight, aluminum alloy passenger loading ramp being produced by Glenn L. Martin Co. can be adjusted so that the top platform is at a level with the door sill of practically any transport plane now in use or planned for the near future.

## When History Repeats Itself... There'll be a royal barge for sale... Cleopatra will have to FLY ta catch Antany



Cleopatra, the original "little Egypt," was not above using a few glamorous ploys (including her own) to snare Mark Anthony. But that barge business won't work a second time, for Tony will be thinking seriously about going places with another iron monster... probably one like this sleek biplane.

Air travel is becoming more comfortable daily, principally because American aircraft manufacturers continue to strive for greater efficiency and safety in design and construction. Providing designers with the equivalent strength without weight advantages inherent in OSTAGO Steel Tubing has been, and will continue to be, The Ohio Seamless Tube Company's contribution to the future development of all U.S.-built aircraft.

## THE OHIO SEAMLESS TUBE COMPANY

SALES OFFICES: Chicago 4, Illinois; Cedar Rapids 6, Iowa; St. Louis 14, Missouri; Cleveland 14, Ohio; Cincinnati 1, Ohio; Toledo 1, Ohio; Atlanta, Ga.; San Jose, Calif.; Seattle, Wash.; Beverly Hills, Calif.; 1919 California Avenue, Hollywood 34; 314 Park Avenue, New York 17; New York, N.Y.; 20 Bond Street, London, England; 300 Madison Avenue, New York 16; 1015 Webster Street, Seattle 2, Wash.; 1000 Connecticut Avenue, N.W., Washington 6, D.C.; 1225 Franklin Street, Denver 21; 30 Union Street, Seattle 2, Wash.; 1000 Connecticut Avenue, N.W., Washington 6, D.C.; 406 First Street, Salt Lake City, Utah; 1000 Connecticut Avenue, N.W., Washington 6, D.C.; 1000 Connecticut Avenue, N.W., Washington 6, D.C.

\* Canadian representative: Industry & Power Engineering Corp., 101 Montreal Street, Montreal, Que., Canada.



Plant and Main Office  
SHELBY, OHIO

## Engineers Setting Up Own Firms

Before the year ends it is very likely that major aircraft manufacturers throughout the nation will have set up their own independent design and development organizations who will finance small manufacturing enterprises and begin production of high-performance small planes which may be sold, ultimately, for \$1,000 or less.

The company set up in Hartford by John D. Depp, Lockheed Little Depp designer, to produce the Sky Master as a consultancy enterprise.

**Design Trend.** **Aerospace**—Structural pre-creases set in the design of the Little Depp may have influenced to a degree the design simplification process which began, as noted, with publication of the "Design Aviation to reduce the parts of its Service amphibian."

Should this presently indicated trend gain strength, there will be developments for which one should watch.

**Die-formed metal fuselage shells** which will be spot-welded to a minimum number of stiffening bulkheads, discovered pre-formed wing skins of high inherent strength (through bending or other techniques) which will be glorified over single cross webs

serving few or no ribs and secured by spot welding, wherever possible, of low-cost mass-produced composite industrial parts, plus a host of high-speed, specialized specialty aircraft parts, and the revision of the instrument field by manufacturers who will include new low costs in setting up large volume production.

**Patent Ventures.** —In the wake of the recent listing of 1000 as an intense interest of all inventors and streamlined designs by those and small-world leaders in their search for ideas which might be revised and used effectively in their planes.

For example, how adopted for the Little Depp, which is a "patented and/or" NASA 940, which he feels will provide his plane with good stability characteristics and low Reynolds number. Similarly, he points out that the fully reversible rudder, also developed by Depp, is a reworking of a principle originally developed in Germany by Dr Hugo Junkers and used in a patent covering aircraft control issued to him by the United States Jan. 19, 1936. (Patent No. 2,046,486)

and refers from several eastern companies.

The helicopter blades to be produced were developed in the Cornell laboratory, Martin said, adding that they are of an entirely new design, of plastic bonded wood with a stainless steel leading edge. He believes their simplified construction will help bring down the price of helicopters.

## Depp Leaves WAA

Richard H. Depp has resigned as chief of the aircraft sales section of War Assets Administration and has been succeeded by Raymond W. Phillips who has been an assistant to Depp since last October. Depp who went with the Reconstruction Finance Corp.'s Office of Surplus Property last summer as the understanding he would have in about six months will become vice-president in charge of operations for Ludington-Goswold, Inc., Springfield, Conn., aircraft accessories firm.

## Harvester Co. To Get Louisville Plant June 1

Plans are being made in Louisville to transfer the Curtis-Wright aircraft plant to the International Harvester Co., but later than June 1 as a result of the sale of the government-owned property for \$70,000,000.

The plant will be used for the manufacture of farm tractors and is expected to employ about 8,000 people. It was built and equipped by the government at a cost of \$15,000,000 and since last August has been under a 51-49-year lease to the LaFrance-Kaufmann Glider Corp., St. Louis, which has just finished the third Tropon Horn glider to be made in Louisville.

**Located At Airports.** —The plant has about 1,000,000 sq. ft of floor space and is located on the west side of Louisville's Standard airfield. Under the standby defense plan it is subject to evacuation by the government and large-scale mobilization is banned.

## British Press Research

LONDON (McGraw-Hill World News)—Great Britain has allocated \$12,000,000 for aviation research in the coming year. John Stracey, Undersecretary for Air, pointed out in his recent report on Air Estimates for 1946-7. He strongly urged that Britain take full advantage of the work of her scientists in the development of aviation science.

## Four Terminated Contracts With Studebaker Scrapped

Terminated war contracts with the Studebaker Corp., amounting to about \$200,000,000, have been scrapped by the War Department for approximately \$11,500,000. Four contracts were involved, engines for Flying Fortress as a cost-plus fixed-fee arrangement, a research project, also on CFFP, and two fixed-fee contracts for vehicles.

The settlement, about 4 percent of the present outstanding, far below the average rate on terminated contracts, which is 9 percent. This is regarded as a victory in the settlement rate on CFFP contracts has been running slightly higher than for fixed-fee agreements.

## Gridley Gets ELC Post

Ron A. Gridley, Seattle engineering expert, has been named as new director of the fast installation division of the Foreign Liquidation Commission. The division, formerly under Col. Sidney Martin, approves import of aircraft and aircraft declared surplus



## Ask the pilot who flies Silvaire and he'll tell you...

**1** *Silvaire*, the only all-metal personal plane is tried, tested and proved. Made to meet the most exacting standards of craftsmanship, the Silvaire is backed by more than 12 years of personal aircraft production experience.

**2** *Silvaire* is easy to fly. Responsive, smoothly to fingertip control. Smooth, silent performance combined with roomy, deeply upholstered seats, makes cross-country flying a restful pleasure.

**3** *Silvaire* is safe. Just as the name implies, safety is its main concern. Its unique safety features add to its safety. The rugged, over strength of the exclusive safety rear cabin is the *Silvaire* is your insurance of maximum protection in all areas.

**THE** *Silvaire*

BY LUSCOMBE

first in ALL-MET Al. personal planes

LUSCOMBE AIRPLANE CORPORATION • Dallas, Texas

**4** *Silvaire* gives higher speed per horsepower. Slow, safe landing speed lets you land it into the smallest airfields. Ample capacity fuel tank gives longer range.

**5** *Silvaire* is gleaming metal, with an extremely designed and finished interior and instrument panel, gives you luxury hotel appointments in your personal plane.

**6** *Silvaire*, with an smooth, streamlined looking contour and high efficiency wing, operates as a cost per ground mile comparable to a modern automobile.

For business, for sport, for pleasure, for family flying—the *Silvaire* is the plane of the day. And remember—if you can drive a car, you can fly a *Silvaire*. See your dealer today.

## FINANCIAL

### Aero Industry Dividend Payments Will Assume Uncertain Pattern

Working capital balances can support some normal payments, however; Curtiss-Wright defers quarterly dividends, Boeing \$1 payment is typical of situation to be expected.

Dividend payments by the aircraft industry this year will assume a very uncertain pattern.

The surprise action of Curtiss-Wright in deferring the regular \$8-cent quarterly distribution on its "A" stock was counterbalanced by Boeing deferring a \$1 dividend after the expected payment late last year.

Working capital balances of most aircraft companies can easily support some normal payment this year. In the absence of extenuating circumstances, such distributions may be anticipated as a reasonable expectation.

**Never Were Stable Income Shares**—Aircraft equities never were good mediums for stable dividend income. In its history, the industry has under constant pressure to broaden its resources mainly to service loans with diversified assets that appeared in conserving expansion programs which hardly encouraged liberal payments to stockholders.

On the completion of all necessary plant facilities, conservative management began to speak of profit and the necessity of creating substantial reserves to prepare for the peace time transition. In the years of events, such determinations were very nominal. The greatest attraction for the aircraft industry investors has always been the opportunity for earnings appreciation. A positive index during the initial stages of the industry's development generally has proven quite predictable, even at current market levels.

**FCW Stopped But Not Audited**—The Curtiss-Wright dividend suspension could have been anticipated in view of the war surplus of engines and the virtual exhaustion of the company's airplane orders. The gasoline magnification of Curtiss-Wright who is a major factor in this situation.

The 1,350,000 shares of class A stock are non-cumulative as to dividends. An issue of 7,632,336 shares of common, below and above dividends after \$1 per share has been paid on the "A" stock. The "A" is callable at \$49 per share but there is little probability in the management's mind.

In previous years, it has been a point of contention by the "A" holders that dividends, while earned, were not paid. This may again become a vital issue in a review of the suspended payments. The non-cumulative feature removes any compulsion for such action. The "A" holders received 50 cents per share in 1947, \$1.00 in 1948 and \$1.00 annually from 1949 to 1943 inclusively.

**United Stock Is Paid**—While United Aircraft also has been held hard by the near total concentration of its assets in war contracts, its dividend stock is of prime investment caliber. The \$5 annual dividend rate is secure, and the cumulative feature is a protective factor to the stockholders.

With the sharp acceleration of operations and the need for substantial capital resources ever, it is likely that the approximately 264,000 shares of preferred will be called for retirement at an overall cost of some \$20,000,000. At the same time, the common, which receives a flat dividend of 1948 price plus 44¢ will be well to obtain \$1 per share this year. The latest reported value by the company was \$4 per share in 1941. The subdivided three year average is \$3 annual payment.

**Grumman May Increase**—The accompanying table shows 1945 and projected dividends with anticipated disbursements for 1946 for most of the representative aircraft companies. An Grumman did not readily enlarge its plant facilities and had substantial Navy business on its books, many observers expect the

AIRCRAFT INDUSTRY DIVIDEND PROJECTION 1945-1946	
Industry	Estimated Total
Boeing	\$1.00
Curtiss-Wright	Deferring
Convair	Deferring
Grumman	Deferring
Lockheed	Deferring
McDonnell	Deferring
North American	Deferring
Piper	Deferring
Reed	Deferring
Republic	Deferring
Stearman	Deferring
Stratoliner	Deferring
Tucker	Deferring
United Aircraft	Deferring
Vertol	Deferring
Waco	Deferring
Wright	Deferring
Others	Deferring
Total	\$1,350,000

company to increase its 1946 payments over 1945.

**McDonnell Appears Secure**—In its recently released annual report, Douglas takes a very summary view of 1946 prospects. Nevertheless, the 25 cents share dividend paid annually since 1946 appears secure for five years.

Dividend payments have averaged a fractional return of earnings in the past. For example, during the post war years, out of total netted earnings of \$186.40 per share only \$33 or about one-third was paid in the form of dividends.

#### United Aircraft Contracts Settled for \$52,000,000

United Aircraft Corp. has settled \$212,000,000 in terminated Army and Navy contracts for \$12,000,000. An additional \$30,000,000 was agreed to on seven future classes of subcontractors, and \$3,000,000 to cover certain unanticipated costs.

The bulk of the contracts settled were between the Navy and United Aircraft and the major divisions. However, some Army contracts were delegated to the Navy and are included in the settlements.

**Among Navy's Largest**—Among the largest settlements yet negotiated by the Navy, this reduces by about one-third the value of fixed-price contracts remaining to be handled by the Bureau of Aeronautics. As of March 31, Bader had outstanding 1,487 terminations totaling \$2,463,758,000.

Contract settlements by all Government agencies totaled 11,206, involving \$8,708,806,000 in February.

"High quality in an airplane tire means safety... Generals give you extra safety"

O. R. Jacob GENERAL MANAGER  
AVIATION SUPPLY SALES, AKRON, OHIO



C. R. Jacob knows from experience that the General Airplane Tire is safety-engineered... built to the one existing standard of Superior Quality. And, like all Price, Commercial Operators and Aviation Supply Men, Mr. Jacob knows how quality pays in America!

GENERAL'S extra quality means EXTRAS protection... dependability... a service and lower operating costs—regardless of weather or type of field or country.

Remember, for top performance... . . . buy "Fly General."

Aviation Division

**THE GENERAL TIRE & RUBBER CO. • AKRON, OHIO**

ENGINES ROUND THE WORLD FOR QUALITY AND SAFETY



# UNIQUE GENERATOR DRIVE



## G-E AIRCRAFT GENERATORS ... RELIABLE POWER SOURCES FOR PLEASURE PLANE OR TRANSPORT



### AC constant frequency GENERATORS

Lightweight, ac power systems, highly efficient at high altitudes, are now made possible with G-E 100-cycle, constant-frequency generators. Capacities include 40 kva, 200-120 volts, 6000 rpm; and 28 kva, 200-120 volts, 3000 rpm.

### AC variable frequency GENERATORS

G-E makes two basic types of variable-frequency ac generators—a unit rated 200 amperes, 36 volts dc (10 amperes, 120 volts ac) 11000 rpm, and one rated 16 kva, 200-120 volts, 1000/2000 cycle ac) 4000-3000 rpm.

### Gas turbine GENERATORS

**STARTER-GENERATORS**  
G-E also designs and builds gas-turbine starter-generators which deliver 300 amperes at 36 volts dc, 3200-1200 rpm. As a starter, the unit develops 310 net pounds torque at 1500 rpm, 340 amperes, 36 volts.

# Double-dares VIBRATION!

Because this exclusive split shaft (1) acts as a cushion between engine and generator, considerably less overall present flexionless in multi-engine aircraft.

Because this exclusive friction damper (2) literally "feels the load" on vertical vibration, limiting the vibration which reaches the split shaft, protecting the shaft against fatigue.

Big reason why G-E aircraft generators perform consistently well is the overall protection we give them against the destructive effects of engine vibration. Shielded against a hazard which can—and does—shake apart less carefully designed equipment, these generators provide a source of electric power you can always depend on. They require low maintenance. Their useful service life is above average. They add an extra margin of safety in aircraft operation.

Whether you want a single, low-output power source for a light plane, or a complex, high-output power system for a heavy, multi-engined ship, you'll be interested in the basic, "anti-vibration" features illustrated above.

Besides minimizing the transmission of small but continuous vibration to engine shafts to the generator assembly, the "shock absorber" inner shaft acts as a flexible coupling between the engine and engine. Careful inspection of shafts by the Magnetrail® control system eliminates those with flaws, cracks, or scratches which might create harmonic stresses.

Then, the flexible shaft and the vibration damper function as in driving each high-torque G-E generator from a double-bearings engine. Minimal vibration is the resulting advantage.

\*Trademark reg. U. S. Pat. Off.

In addition to these primary safeguards, G-E aircraft generators are equipped with mounting flanges forged of specially treated steel, to absorb punishing engine vibration. Thanks to a unique contour design this flange is able to overcome high fatigue and main stresses.

### Electrically Sound

Compensated shunt field windings on G-E aircraft generators provide the most complete insulation coordination over the entire rated load range—a important factor in high-altitude operation. Moreover, to solve bearing lubrication problems to the compressor and using glass insulation and Fomors® wire throughout, we have raised the safe temperature rating for these generators—done it without increasing their size or weight.

Thousands of G-E aircraft generators of all types were used in the war under grueling stress conditions. This has turned to short-range peace because records in further evidence of G-E's ability to design and produce electrical systems and individual components for aircraft applications. The valuable experience so gained in aircraft building, engine building, and operators who are easily interested to consult with G-E, on any electrical problem. Apparatus Dept., General Electric Company, Schenectady 5, N. Y.

GENERAL ELECTRIC



## SPECIAL AIR SERVICES

CHARTER      NON-SCHEDULED      INTRASTATE

### Institute of Air Transportation Organizes as Conference Opens

One-day conference in New York today is expected to draw nearly 100 representatives of unclassified passenger and cargo companies; president to be elected.

In preparation for opening today of the largest national association ever held by the country's Federally unclassified passenger and cargo air carriers, the month-old Institute of Air Transportation has already completed its organization, adopted a constitution and by-laws, and elected most of its officers. A president was to be named at the conference.

The meeting at the Waldorf-Astoria Hotel is expected to attract representatives of about 150 passenger and cargo operators, none of whom hold CAB certificates and therefore do not belong to the Transport Association of America. Shipping firms, freight forwarders, and other allied industries will also attend. Many of the delegations are

expected to join the institute's new original members.

► **Fleet Meeting**—At the first annual meeting of the institute, incorporation, a board of directors, by-laws, and a slate of officers were ratified. George B. Beechey, general counsel, was authorized to request CAB to reopen Decree 1581, covering regulation of charter operators, and was also authorized to interview all CAB hearings, news field, on applications for cargo carrying equipment. His recommendations were held again and the institute felt that these own conception and growth since had changed the aeronautical picture.

To assist the legal counsel, two committees were appointed, one on cargo, and charter passengers.



BRITISH AUTO ON FIRST AAE FLIGHT:

John C. Lambert's American Air Express Corp. opened regular express and cargo service between New York-Boston and Los Angeles-San Francisco carrying a British-built budget Standard auto. J. B. Ferguson, of Ferguson Motors, Inc., Standard dealer in New York, is shown with AAE's chief pilot, Capt. Robert J. Casey before the first take-off by one of the company's four C-47s. The more ships will be added by June. Lambert also proposes five feeder routes, linking 22 key cities to his company's main line.

**First Officers**: Officers of the Institute are B. O. Bertramson, executive vice-president, formerly of U. S. Airlines but now full time with the Institute; Hobart Cook of Trans-Marine, vice-president; Gilbert P. Scott, Trans-Marine, attorney; Harvey S. Stevenson, treasurer; Alvin S. Seiden, New York attorney; general counsel.

**Directors**: On the board are Thomas A. Carroll, American Air Express-Import; Richard F. Hodson, Veterans Air Express; Edward Jenkins, National Skyway Freight; Thomas J. Eppley, Trans-Caribean; Harvey G. Stevenson, Veterans Air Express; Lewin A. Van Rutherford, Willis Air Service; Edgar J. Wynn, Trans-American Airways; S. G. Summarious, executive vice-president; and Mr. Beechey, general counsel.

► **To Commercial Industry**: Strong emphasis will be placed at today's meeting on ways and means of cooperating with CAB and CAA. Other subjects include uniform bills of lading, joint maintenance facilities, crew personnel, and the various problems of planning and preparing for air.

Last week the Institute mailed questionnaires to about 150 non-scheduled and charter operators, many of whom are considered potential members, asking for specific data on their services, as to scheduled or unclassified, passenger or cargo, intrastate or interstate, equipment in hand and ordered, number of personnel, percentage of women employed, and maintenance facilities.

Results of this survey are ex-

pected to be of value to CAB, CAA

and others in evaluating the growing branch of commercial air service.

## NEW DEVELOPMENTS

### Business Soaring, Robinson Reports

Ithaca, N. Y., has carried 1,151 passengers in three months of this year, will open new routes

Robinson Airlines, Ithaca, N. Y., completed the first year of its operation early this month carrying nearly 400 passengers a month on its routes between Ithaca and New York City, and Ithaca and Buffalo. The line flew 1,151 passengers in the first quarter of 1946. President G. B. Robinson reports, with constantly increasing traffic anticipated



Built-in Chemical Stability of  
Oil maintained by constant  
mixing and checking.

Proved  
Superiority!



D-X Aviation Oil, proved in thousands of warplanes under all flight conditions, has the stability to resist the terrific heat of aircraft engines, and so resists the formation of gumminy deposits, its strong, protective film minimizes wear. Made of selected Mid-Continent paraffin base crudes—solvent-processed—D-X Aviation Oil provides more hours of service and helps minimize costly repairs. Inquiries invited.

MID-CONTINENT PETROLEUM CORPORATION  
TULSA, OKLAHOMA

## Institute Seeks Highest Standards

The newly organized Institute of Air Service Operators and Their Agents, New York City, first industry association of federally unclassified air carriers, includes the following objectives in its constitution:

- Encourage higher standards and ethics.
- Encourage fully rated operators.
- Promote better facilities and maintenance facilities at airports and maintenance facilities at airports.
- Seek uniformity in rates, fares and other remunerations.
- Seek closer relationship between operators and allied industries to seek efficient cargo procedures, handling, storage, etc., to make available air cargo services by acquainting manufacturers, government, public, distributors and consumers with the advantages of shipping by air.
- Encourage better economic practices.
- Work with governmental bodies whether Federal, State or municipal, and support programs which strengthen importance of adequate facilities for handling passengers and cargo of the non-scheduled operator, contract carrier, and charter operator.

Throughout the year and months when no night-passenger scheduled flights go into service. Additional routes to be opened this year include Toledo-Bethel and Toledo-McCormick-Albion. The company's California negotiations regard all of these services, plus Idaho, Washington, D.C.

**► Columbus Airlines**, Baltimore, has opened twice daily air express service between Baltimore and Hagerstown, Md., with addition at Cumberland planned soon.

**► Waterman Airlines**, Mobile, Ala., has added a new passenger flight daily between Mobile, Montgomery and Birmingham, Ala., using a recently delivered Lockheed Lodestar. This supplement's daily service began earlier this year between these points and Dothan, Huntsville and Muscle Shoals, Tuscaloosa and Selma will be added when equipment is available.

**► Novel Airlines**, "Guanajuato" N.Y., has requested state authority to begin daily freight service between Buffalo and New York City beginning about May 15, according to Joseph L. Himmberger, president. Two DC-3s would be used on four daily flights.

**► Florida Air Lines** has begun daily passenger service between New York. Company has ten planes

engaged Gannett, and was organized by John Charlton, former AAF major; Howard Alff, and Mervin Dubois, ex-AAF flight instructors.

► Work with legislative bodies in preparation of laws of non-scheduled and contract carrier operations. In order that there may be a clearer understanding prior to passing of legislation of the problems and requirements of air transportation and especially of these groups:

- Standardize operation at airports along routes, seek better rates on insurance, landing fees, and similar matters.
- Build confidence of the traveling public in charter operations and encourage safety measures.
- Establish and maintain highest standards in maintenance, operations, and service personnel, with view to increased safety, economy, and better service.
- Promote through public relations good will of operators, for better advertising and cooperation of all concerned.
- Encourage, encourage and assist in research.

Membership of the Institute will comprise contract carriers, charter, non-scheduled, liaison, international operators, charter, insurance, and allied industries.

## Arizona Ranches Get New Pickup Service

Tuscar and Manzana, Fla., with stops at Jerome, Ft. Mohr, Cleaveland and West Palm Beach. The company, incorporated by a group of Arizona and New Mexico ranchers and oilmen, is headed by 35-year-old Sam Collier of Utopia Island, and son of the late Hermon G. Collier, who invested millions in Florida real estate and business development.

Mr. Collier and Pleasanton Air Lines will use Cessna and planes to replace them later with 30-passenger Beechcrafts when the larger type is available.

Pleasanton has an application pending with the Civil Aeronautics Board for a permit to extend the Tampa-Manila service to Atlanta, with stops at intermediate points in Florida and Georgia.

**► Novel Features**—He added that the new air line plans two new operating features. Its reservations and tickets will be handled through the Tampa office. Total fares will be the same and the ticket price will include the cost of travel on ground at both ends.

**► Transocean Charter Lines**, Lakeland, Fla., has started twice daily passenger flights from Lakeland and West Palm Beach to Fort Myers 110 miles across the state. Twice weekly service is offered to New York. Company has ten planes

the **BEST BUY** in the **SKY**

Takes every night

Taylorcraft

TAYLORCRAFT AVIATION KIRKLAND, OHIO

WORLD'S LARGEST MANUFACTURER OF AIRCRAFT BY DIRECT SUPPLY

**WRITE, WIRE or PHONE**

# GRAND CENTRAL AIRPORT CO. ELLENDALE (LOS ANGELES CO.) CALIFORNIA

One Citrus 1-2101

for your

Phone Chapman 5-1222

## RECONVERSION OVERHAUL RE-LICENSE

In January... OUR SHOPS (C.A.A. approved repair station No. 75, since 1929)  
ON OUR OWN AIRPORT, GRAND CENTRAL AIR TERMINAL, COMPLETED....

6 Lockheed Ladestars C-60	1 Cessna UC-78
1 Douglas DC-3	1 Stearman PT-13
2 Douglas C-47	1 Stearman PT-17
2 Vultee BT-13	

WE SPECIALIZE IN CUSTOM INTERIORS. In January we delivered to Time, Inc., (publishers of LIFE, TIME and FORTUNE) a Lockheed with what we consider the finest custom interior ever installed in any airplane.

**WE HAVE THE EXPERIENCE — THERE IS NO SUBSTITUTE FOR IT**



Right now we have what we believe to be the finest service and overhauled facilities in the United States, with a large group of highly skilled personnel, many with 10 to 20 years' experience in Aviation. Many of these men have been with Grand Central Airport Company for more than 10 years.

**CALIFORNIA  
ERCOUPE  
DISTRIBUTOR**

## PRIVATE FLYING

### More Work Needed To Develop Facsimile Weather Map Network

Aggressive research programs necessary if transmission of meteorological data to small airports is to become practical; experimental circuits now are in operation.

By ALEXANDER MUSURELY

Adequate weather information for the private flyer, distributed over a facsimile weather map network, can be made a reality within a few years, but only if present equipment in flight developed through an aggressive research program.

For several years officials of the U.S. Weather Bureau have been conducting a research program on transmission of weather maps by the facsimile process, a method similar to that used in transmitting newspaper photographs by wire or radio.

**Begins at Washington**—The program begins with transmission of maps by a telephone line from the downtown Washington office to the Washington National Airport.

Since that time two other experimental circuits have been opened, one from Seattle, between the seaplane airport and Army Field, and one in New York, between Le Guards Field and the city weather office.

**Needs Further Development**—It is believed that once the experimental development of the equipment to a higher state of perfection has been attained, the service could be provided by the Weather Bureau to small private flyers' airports at a cost of \$300 to \$500 for the equipment, assuming that a large number of airports and small cities would use the new service. Presently the necessary equipment would cost probably \$1,200 per circuit.

Serious problems which must be solved prior to the setting up of a system of regional weather map networks are the following:

- Where is the money coming from to do the necessary preliminary development?
- Will the government finance the transmission of the maps, or will it have to be done on a fee basis to each airport which gets the service?
- Can the service be made of sufficient use to other businesses to

make it feasible, so that they too will share in its cost thus reducing the cost per unit?

► Will there be enough weather bureaus using the facility to warrant expansion of the network to cover their present development?

► Will television complete the facsimile outlook by offering an alternate means of map transmission?

► **Cut Out of Budget**—The U.S. Bureau of the Budget, which so often has been a stumbling block to aviation's development by curtailing experimental and research programs, appears again in its annual rule in the House weather map study. Approximately \$500,000 was set aside by the Weather Bureau last year to continue its research in facsimile transmission as required by the Weather Bureau's budget.

The Bureau has apparently lopped out by the Bureau of the Budget when it began consideration of the Weather Bureau's requests.

So if the facsimile map research

is to be continued, on a scale necessary for solution of technical difficulties still in the way of general use, something must be done to secure additional funds. This amount may be provided with funds to complete the project, or some other government agency, perhaps GAA, must take it up, or it must be done by private enterprise.

**Technical Problems**—Manufacturers of the equipment question whether the potential volume in the equipment sales in the near future justifies their expenditure of the necessary development funds. The operators of the small airports for the private flyers are, with few exceptions, not in a financial position to back the experimental program financially.

Technical problems involved which need additional work are many:

► The speed of transmission needs to be increased from its present rate of approximately 10 sq. in. of map per minute.

► Smaller airports, particularly, will need facsimile receivers which are virtually automatic, needing very little attention from the airport personnel.

► Additional study of the choice between telephone lines, and radio transmission which would have to use FM (frequency modulation) for satisfactory performance, is needed.

► **Used By Army**—Facsimile map transmission was used by the Army during the war in a more complicated system which required a tremendous amount to operate it. It transmitted the maps at about 8 sq. in. per minute.



### CANADIAN FOX MOTH

Douglas Aircraft of Canada is refining production on an improved version of its pre-war Fox Moth four-place biplane in which the pilot sits in a platform-mounted cockpit behind and above the passenger cabin. Two passengers face forward and one faces aft. The cabin floor is reinforced for heavy freight and may be converted quickly for cargo. The Fox Moth will hold more than 500 lbs of freight 275 miles on 25 gallons of fuel and also may be used as an ambulance plane. Peterborough is a 125-hp. Gipsy Major engine. Tiger Moth and other Balliolland components are incorporated in the plane as an advantage as armament. Cruising speed is approximately 80 mph. The plane is regarded as especially adaptable for charter flying. It has floats for floats and skis. The plane sells for \$14,450.



### WHEELER III-A:

Sketch of the Wheeler III-A, four-place, all-metal, pusher personnel plane now under construction by Pacific Pacific, Inc., Tacoma, Wash. (Aviation News, April 11) shows nose sections, doped, fringed wings, landing gear with fairings, and other features of the plane. Powerplant, a 170-hp Lycoming engine, is expected to provide 128-mph cruising speed, and 135-mph top speed, with 58-mph landing speed.

Airport operators and private flyers who have attempted to plan their aviation activities without the aid of weather information know well enough a system of revised weather maps, recording approaching weather in their particular areas, would be to their own benefit.

Currently most private flyers are limited to the weather information which may be gleaned in a brief telephone call to the local weather bureau; if they make it to a television obtained from a similar telephone call, posted at their airport by the operator.

**Would Aid Flying.**—Weather is admittedly one of the biggest obstacles to the progress of personal aviation, and part of this obstacle can be removed if the small airports and the private flyers can be supplied with accurate, complete, up-to-date weather information.

### Consultants Urge 15 Fields For Baltimore By 1950

Recommendations for 15 private flying airports in the Baltimore area by 1950 and 25 by 1960 have been made by the city's consulting engineers, Whanson Associates, Greater Co. and associates. Nearly all of the fields are expected to be developed by private capital.

The engineers believe the city will have discharged its obligation to aviation by development of the big new Friendship Church site as a commercial airport, and by making available the existing municipal airport to private flyers. Currently the city has only three Class I airports.

**Six More Planes.**—They estimate that the number of private

planes in the Baltimore area will reach 4,800 by 1950 and 7,600 by 1960.

The report recommended general locations for the additional private fields, based on aircraft ownership, available sites, existing travel routes and existing ground transportation, but said selection of actual sites would be conducted by many factors and should not be made too far in advance.

### Michigan Air Department Takes Delivery of Brouse

The Michigan Department of Transportation has purchased and received a new Escravo to be used in connection with the reversal of the state's winter weather programs in the state. The plane also will be used to fly the small and isolated airports for inspection and to work on airport development programs. Col. Floyd E. Kress, state director, emphasized.

He is campaigning to have at least 300 Michigan towns equipped within the immediate future as a safeguard to the private flyer, and is offering assistance of the department in determining the type of marker to be used by a particular community.

### Washington, D. C., Meeting Shows Interest in Clubs

Indicative of the growing interest in flying clubs was a recent organizational meeting among Washington government employees and other would-be flyers.

Of 180 persons attending the first meeting, 46 signed blanks indicating their desire to spend a total of

### Pilot Left Behind

A slightly damaged wing and tail section of the biplane propeller were the only equipment left when a pilotless lightplane had to abort for a recent three-hour flight which ended when it ran out of gas and landed in a plowed field near Lincoln, Neb.

The plane was owned by Clark Radio Service Co., Omaha, and had been taken by one of the company pilots, Glen Robinson, to a barn near Fremont, to give flight lessons. Robinson apparently neglected to turn off the fuel switch when he started the engine after the plane joined the unpowered gliders and began its climb. Robinson turned off the dash, but couldn't make it so easily only watch on, with left wing low, the plane climbed to about 100 feet, stalled and crashed with a splash. The plane landed 42 miles away, three hours later.

"It just goes to prove," said William Frazee, Jr., president of the Clark Radio company, "that the modern planes will almost fly themselves."

**Stamps the first year, including price of the club plane, and \$3,000 a year thereafter for flying time and dues.**

**Many Work for CAA.**—Many of the potential club members are CAA employees who will provide the administration with a first-hand laboratory experience in operations of low-cost flying clubs. Besides the additional facilities for the private flyer in the Washington area were announced at the meeting Charles S. Pfeifer, chief of the CAA personnel section, acted as chairman.

### Six Canadian Distributors Appointed By Republic

Republic Aviation Corp. has announced appointment of Curtiss-Rich Flying Service, Ltd., Montreal, as distributor for the Quebec province; and the Province of Quebec.

Other Canadian dealers appointed include Palmer Bros. Ltd., Nova Scotia; for the three maritime provinces; Lawson Bros. Air Services, Ltd., Vancouver, by Gistone, McDonald Aviation Co., Ltd., Edmonton, Alberta; and The Northwest Territories, Air Commandos E. L. MacLeod, Vancouver, for British Columbia; and Clyde G. West and Co., Whitehorse, for Yukon Territory. Distribution for Saskatchewan and Manitoba still are undetermined.

## Washington Conference May Bring Further Revision of CAR Part 03

May 6-8 meeting of CAA officials and AIA Airworthiness Requirements Committee, open to engineers from all lightplane manufacturers, will provide first group discussion of new regulations.

Further revision of Civil Air Regulation Part 03, dealing with airworthiness requirements of non-transport aircraft including personal planes, are likely to develop from an engineering conference between CAA and industry representatives in Washington May 6-8.

The meeting has been opened to engineers of all lightplane companies by its sponsor, the Airworthiness Requirements Committee of the Aircraft Industries Association.

**Plan Change.**—For discussion purposes of the conference lies in the fact that it is the first sounding board for industry opinion on the new Part 03 rules as was placed in effect last November.

During the first six months need for clarification of a number of provisions have arisen. Also a number of the manufacturers have developed proposed alternative procedures which they believe would simplify or improve the original regulations, or the interpretations which have been placed on it by CAA.

**Conflict With PICAO Decisions.**—There also are some discrepancies between Part 03 and parallel international requirements which are set up in tentative PICAO decisions. The manufacturers are seeking a standardization of the set of requirements.

Session chairman will be Rapier W. Scott, chief engineer, Lamonde; George W. Lechner, executive engineer, Fairchild; and Ray Barnes, chief engineer, Aeroco.

**Topics Outline.**—Among questions to be discussed are:

• Manufacturer's eligibility for CAA production certificate.

• Manufacturers' designated factory inspectors and designated engineering representatives.

• Daily or monthly or summary of requirements laid down by foreign countries for aircraft under reciprocal agreements.

• Will proposed Part 17, which provides for certification of certain instruments for instrument flying result in higher prices on instruments?

• How are paper work and test

### Engage To Learn

One of every four adults in the U.S. would like to go to college, according to George Golday's poll for the American Institute of Public Opinion. The poll, based on a nation-wide questionnaire of individuals ranging in age from 18 to 65, found that those who wanted to learn would be willing to spend on the average about \$100. Best market for flight instruction was found among the 21-25 year age group of both sexes, approximately half of whom wanted to fly.

In the 36-40 age group 80 percent wanted to learn while in the group 56 and over only a quarter wanted to learn.

**New Better Facilities.**—Of those interviewed 70 percent said they wanted to learn because they offered a better prospect for instruction than a woman, only 18 percent of whom wished to learn,

including use of dogs and retrieval of landing gear.

**Flyers, Wright Invited To Attend.**—CAA Administrator T. P. Wright and CAA Chairman L. Welch Pogue have been invited to attend the sessions and participate in discussions.



### AIRPARK SEMINAR ECHOES:

Widespread interest in the recent Los Angeles Airpark Seminar for craft and political leaders of the area has led the Southern California Chapter of NAA, which sponsored the meeting, to distribute a booklet digest of seminar discussions in 1946 West Coast political and business leaders. At a recent chapter dinner a photographic enlargement of the AVIATION News story (March 26, 1946) on the seminar, was used to illustrate the interest in the meeting. Seated at the speakers' table, left to right: Col. Joseph F. Marrott, Birth Region AAA director; Reginald Green, pioneer developer of radio-controlled aircraft; V. A. Klemmeyer, NAA chapter president; Richard Deit, acting traffic manager, Western Air Lines; John R. West, past chapter president and former speaker; and Jim Hall, film star.

## Aeronca Booklet Outlines Club Setup

Bengtsson, the growing trend toward establishment of flying clubs by persons who first present flight training rates as high, a pamphlet has pointed to demands Aircraft Corp. describes the advantages of a flying club and suggests a plan of operation.

Using the 22-360 Aeronca Champion as an example, the booklet shows how a club of 20 members can purchase a new plane for a down-payment of \$10.25 each and 12 monthly payments of \$7.84 each to cover insurance and finance charges on the original balance. A charge of \$8 per flight hour covers gas and oil, maintenance, storage and overhead.

**Formal Group**—Also included in the following demands for flying clubs are requirements for membership, retention of plane as property of club members.

Divide price of new plane and equipment by three. Divide cost by number of club members to obtain downpayment for each member.

To determine monthly payment for each member multiply price of plane and equipment by .06250, and divide result by total members.

## Shipping of 'Knocked-Down' Planes OK'd

Mail or truck shipment of new personal-type airplanes is "decidedly good," according to the first part of a statement which is expected to be used more frequently as the result of a new CAA regulation change, effective last week.

T. P. Wright, Civil Aviation Administrator, explains that the change was made to meet demands by the manufacturers who have before now required by CAA to assemble such planes for test flight and then disassemble it for shipment.

**Mobile Branch Assembly Plants**—The new rule will make it possible for manufacturers to set up branch assembly plants at convenient distribution points, so which they may ship parts or sub-assemblies from the main plant.

## Hallcrafters to Supply All Radios for Student

Hallcrafters Co., Chicago, last week announced it had signed a contract with Republic Aviation Corp., Farmingdale, N. Y., to build all the two-way radio-telephones for the four-place Seabee amphibian. The contract was described as

the largest post-war agreement between a plane company and a radio company in the present aircraft field.

The Seabee, under the contract, will be an slender cockpit the Hallcrafters Skycraft CA-4, a transsever weighing less than 8 lbs., and designed to be free from vibration noise without expensive shielding.

The contract was negotiated by Alfred M. Morrison, Republic's president, and James Radde, president of National Aeromarine Corp., Camden, N. J., consulting engineers and national aviation representatives in Philadelphia.

## U. of Oklahoma to Get Norman Naval Air Base

The University of Oklahoma probably will obtain control of the big Norman, Okla., Naval Air Base in the near future.

The University plans to use the airport facilities including the landing strips, control tower, hangars and shops for the training of pilots at the university school of aeronautical engineering and to provide the city of Norman with remedial aircraft facilities.

## Exclusive Contract Closed

Gulfstream Aviation Corp., of Rockville, Md., recently announced its exclusive aircraft sales rights of the Georgia Tech School of Aeronautics facility. Completing delivery on the new plane (above) are, left to right: Prof. A. I. Brucker, club secretary; Cecil Culbreth, Atlanta manager for Southeastern Air Service; George distributor; Ben Clegg, Jr., club president, and Richard T. Adelvold, Jr., club treasurer.



### \$3.00 PER FLYING HOUR:

Older flying club in Atlanta, Georgia, Inc., with 15 members, plans to operate its new hangar for \$3.00 per flying hour which will cover fuel, oil, routine inspection, repair, overhead and hangar rental. Since 1937 the club has flown some 3,500 hours without personal injury, and with a recorded landing over the same distance. The Brouse is the club's fourth plane. Members include several members of the Georgia Tech School of Aeronautics faculty. Completing delivery on the new plane (above) are, left to right: Prof. A. I. Brucker, club secretary; Cecil Culbreth, Atlanta manager for Southeastern Air Service; George distributor; Ben Clegg, Jr., club president, and Richard T. Adelvold, Jr., club treasurer.

## U. S. Aviation Underwriters N.Y.C. Office Reorganized

United States Aviation Underwriters, Inc., has announced reorganization of its Eastern department in New York. Headed by James R. Givens, it will have a staff of 35 assistants including seven pilots recently discharged from the armed services.

USAU includes 81 American stock companies, 47 life companies and 14 casualty companies. Its members write all forms of aviation insurance.

John W. White, Jr., president of the insurance business since 1939 and in aviation insurance since 1936, from his new appointment he had been production manager for the group.

## Reber Named Commander Of Pennsylvania CAP Wing

Cecil A. Reber, Lewis Park, Pa., has been named commander of the Pennsylvania wing of the Civil Air Patrol, and advanced to the rank of lieutenant colonel. Formerly state CAP executive officer, he succeeds Lt. Col. Philip H. Neudorf, Altena, who retired to turn over the duties to a person who could devote full time to the CAP service.

Reber plans to move state headquarters from Sheshock to the Reading Municipal Airport as soon as facilities are available. He began the CAP career as commander of the Reading CAP senior service which was started early in the war.

## British Company Offers Two Lightplane Engines

New international competition for Aviessus lightplane engine builders is offered by the Marmon Motor and Engineering Co., Waukesha, Wisconsin. The company has developed a series of two new five-cylinder horizontally-opposed, air-cooled, direct-drive engines of 14 and 16 hp.

Both motors are in the propeller ring and the 16-hp unit will also be test flown. Both units will go into production soon. Either is adaptable for use in a biplane or to drive a pusher propeller, or may be furnished with an extension shaft assembly for mounting in a wing nacelle.

**Dimensions Given**—Overall dimensions are length 35½ in., width 32 5/16 in., height 37 in. Estimated dry weight for either is about 200 lb. Charging rate is given as 1,200 to 1,300.

## Briefing For Private Flying

Aircraft Industries Association, which probably should know better than any other source in the country, predicts total production of personal planes for 1945 will be approximately 36,000. Material delays and strike action which may prevent the manufacture from turning out this volume of planes. Manufacturers now have an order more than 24,000 orders for personal planes, with additional orders coming in daily, the association reports.

**220 MPH WITH TWO STOPS**—A flight of 1,163 miles in 9 hrs. 50 min. with two stops for fueling included, is the very respectable record set by a Cessna 140 last week. The flight was a delivery from Wichita, to Gila River, Arizona, and the crew were John Wright, chief pilot of Standard Air Service Corp., and Bob Dawson, flight instructor at Gila Bend. They left Wichita at 95 mph (Cessna 140), stopped at 84 Lewis and Clarkman for fuel, and landed at the local field at 425 mph (P-51 T), which forces out to slightly over 170 mph retarding speed for the closed time. Marks that doesn't count the track to an ex-airline pilot but it is fast enough for a conventional high-wing struts-braced monoplane with flood landing gear and 35-lb engine. And it's a wide-enough wingspan over automobile road speeds to prove the lightplane's practical utility. The plane was the 25th to leave Cessna's production line, indicating that the Wichita company is well along into production and catching up with some other concern which had a considerable head start.

**CHARGEABLE NAME**—The firm of Taylorcraft Aeroplanes Ltd. (Highfield) recently announced change of name to Aviessus Aeroplanes Ltd. The firm makes business aircraft by license of the American Taylorcraft licensees, but from it has developed a somewhat different British design—the Taylorcraft Astir, used in a wartime military version as a liaison plane and now being marketed as a private and personal plane. There has been some financial connection between the British and American companies for several years, it is understood.

**FOR ONE AND ALL**—Edgar F. Lybeck, general chairman of the New England Light Flight Tour, June 13 to 15, beginning at Providence, R. I., and ending at all New England State capitals as well as other cities, wants it general understanding that participation in the flight can be limited to New England. Pilots of private aircraft, foreign residents and visitors are welcome. They should register by mail well in advance of the first date with the New England Aviation Trade Association, Norwood, Mass., for accommodations. Lybeck says that somewhere the impression has developed that the tour is only for New Englanders, and he wants to correct this mistaken impression. A number of nonresident fliers are planning to send their planes to participate, and having announced it will send at least six and possibly more of its own models.

**FLIGHT PLAN SERVICE RESTORED**—CAA has announced resumption of its pre-war practice of accepting flight plans from our pilot who wishes to file one. Filing the flight plan, the pilot does not file the flight to arrive at a destination en route, arrival and return directions will be assumed. Persons who file flight plans receive a arrival report which contains the name of the place where the flight's destination. One hour later the query is received, and an alert notice is sent throughout the area. If as word from the pilot is received in three hours search and rescue measures are sent out. Importance of the pilot sending back the arrival report is emphasized by a \$25 fine which CAA imposes for neglecting to complete this task. It is pointed out that failure to report arrivals may start a costly but unnecessary search.

**BLACKLIST PLAN**—Plans to cut down reckless flying in the San Diego County area by licensing reckless pilots from use of aircraft at any field in the county have been announced by the county Airport Owners and Operators Association.

—Alexander Melikyan

## TRANSPORT

### U. S. Junior Chamber of Commerce Broadens Aviation Referendum

Poll set out to nearly 1,000 chapters contains six questions instead of the single one planned when participation was being measured by Air Transport Association.

By MERILIN MURKIN

The United States Junior Chamber of Commerce, in collecting aviation legislation as the subject for its fall annual referendum, has given the single question (of exclusive Federal jurisdiction over commercial air operations) which was contemplated when the airlines were considered participants in the poll some time ago.

The referendum now in progress covers all legislation concerning the regulation of flight operations, contract carriers, and other subjects. The nearly 1,000 Junior Chamber chapters throughout the Nation are being asked to signify by April 15 whether they are for against, or non-committal on the following:

- International regulation by CAB of scheduled airways sufficiently advanced to make little legislative action necessary;
- Domestic franchises operating providing transportation services to be granted in obtain a single Federal permit, provided with a minimum of Federal aid, and subject to CAB restrictions except as necessary for safety of the air space;
- Domestic franchise carriers to be restricted to regulation, but to prevent ap-

portionment for development, but to prevent discrimination and unfair regulation;- About the CAB and the FAA to retain control of the Congressional Departmental committees over whom they had prior to the 1938 Civil Aeronautics Act;
- The regulation of air terminals to make up an international airport system, association with an independent terminal authority;
- Eliminate through appropriate agencies understate a superimposed airport distinguished and functionally;

- **Agreements Summarized**—The bills were accompanied by a summary of agreements pro and con on various issues, and a bibliography for further reference which covered the following:

- **Domestic Franchises**—The bills were accompanied by a summary of agreements pro and con on various issues, and a bibliography for further reference which covered the following:

### New Maps Planned

The Coast and Geodetic Survey will begin this year to draw new section and elevation of all obstructions around principal U. S. airports, with plans to have them eventually for all airports used for scheduled air traffic.

Already available at 46 ports south from the Survey (Washington 25, D. C.) are charts of Love Field, Dallas; AAF Field at Galveston and Weld-Orchard Field, Fort Worth. To be completed early next month: National Airport, Washington; Louisville, Louisville; Long Beach, California; Indianapolis, Indianapolis; Milwaukee, Milwaukee; Fort Worth, International; Birmingham, Birmingham; Cincinnati, Cincinnati; and Buffalo, N. Y.

• **Slide** is one in to scale 1:600 ft., and the maps show all obstacles above an approach glide angle of 40°, covering the area within three miles of each end of such runway.

were to continue two years and cost \$12,000 of which AIA and ATA each would contribute half, or \$6,000 a year.

• **Flight Training**—Part of the amendment, the Junior Chamber planned with ATA against support a referendum to its chapters based on opinions from all modes of transportation on the question of State and Federal vs. sole Federal jurisdiction over the air carriers.

- **Flight Training**—The referendum period came along, however, and AIA decided not to take part in support of the education program. The suggestion was made that AIA assume the entire \$12,000 obligation, but the association rejected it after consultation with the referendum had been finished.

The Junior Chamber, having announced that the referendum would be held, is proceeding with it while the air carriers wonder what the answers will be to the last few questions on the ballot.

### Sanitary Regulations Due

Sanitary regulations for airline planes, being developed by the Public Health Service and Air Transport Association, will be completed in the next few weeks. Hearings have been held in San Diego and another meeting is planned soon. Regulation will deal mainly with preparation of food for service in flight, and waste disposal.



CONSTITUTION GROUP PICTURE

This "crossed shot" of Constellations of the Lockheed plant line in Burbank, Calif., shows in the foreground one of 20 Constellations ordered by Eastern Air Lines. The four beyond it carry the colors of Pan American Airways, and that of eight background is marked with American Airlines' corporate

### Move Underway in Senate to Curb International Jurisdiction of CAB

Sen. Brewster announces he will introduce measure to define board's powers under the 1938 Civil Aeronautics Act; McCarran plans for treaty classification likely to be abandoned.

of long-range equipment inquiries that such a base be at one end of the company's transcontinental route. In announcing the decision, W. A. Patterson, District's president, said the move eventually would mean tripling personnel and quadrupling facilities at the San Francisco shop, raising employment to approximately 3,000 persons and space to 500,000 sq ft.

The plan will still be a major economic blow to Cheyenne, which will gain between 1,500 and 2,000 UAL shop employees although Board officials stated the shift would be gradual and would not begin to have notable effect for a year or more.

### Redfern Heads Committee To Boost Tourist Trade

M. F. Redfern, secretary of the Air Transport Association, is chairman of a temporary committee to work on a program for promotion of world travel and business travel through removal of unnecessary travel restrictions. First meeting will be held March 21.

Vance C. Coffey, of Abingdon, Va., president of the National Federation of Shipping. Other groups represented are travel agents, the American Automobile Association, National Travel Association, and American Hotel Association.

### Bogota Route Opened

CALACAS, Venezuela (McGraw-Hill World News)—Direct air service over the mountains connecting between Caracas and Bogota, Colombia, now has been established by both CAB and Avianca. Planes leave twice a week in each direction. The trip takes about six hours.

### Board Acts To Speed Route Cases

Measures to modify functions of Public Counsel, dispense with public hearings, and establish closed liaison between the Board and its divisions have been adopted by CAB in first step in a new program to expedite route case decisions.

Public Counsel will continue to participate in hearings before the Board, but will be eliminated after an adequate record through introduction of evidence and cross examination of witnesses, but in brief and oral arguments before the Board he will be limited to legal aspects important in case of

appeal. He will not, except where specifically requested by general counsel, be concerned with selection of witnesses or with conduct of Board proceedings. The change was suggested by the general counsel's office.

**Panel To Be Cut Down**—Except in special cases, all briefs to the Board will be eliminated after an adequate record through introduction of evidence and cross examination of witnesses, but in brief and oral arguments before the Board he will be limited to legal aspects important in case of

## Air Service to Reach 'Grass Roots' Soon

At least 20 more medium-sized communities will be on certificated lines in next 12-15 months

By CHARLES L. ADAMS

As transportation will penetrate the "grass roots" of the nation on an unprecedented scale and, for the most part, on an experimental basis during the next 12 to 18 months when at least 300 medium-sized communities are now being served between scheduled stops on certificated airways.

Forty-two of these points were first placed on U.S. air maps in the last two months. Many of Florida's feeder distances and stops more will be designated when CAB certifies additional carriers in nine area route cases still pending. Seventeen other cities have been authorized stops for some time, but as of April 1 service was either suspended or yet to be inaugurated.

**Stevens Posts Beach Run High.** On April 1, destination U.S. airline points actually receiving service reached a new high of 221, excluding 40 communities on all American Airlines' pick-up routes. Ten cities without scheduled service as Jan. 1 were added by the nation's carriers in the last three months of this year.

A glance at the present airline map will show how small cities among the 221 receiving scheduled service. In the vast majority of cases today's typical airline community is an important trade center with a population well over 30,000; in thirty, however, the next 300 points receiving airline service will have populations averaging considerably under 30,000, as evidenced in CAB's Rocky Mountain and Florida area decisions.

**New Route Analysis.**—The five routes granted to Ray Wilson, Inc., Denver, include 22 different points, 16 not previously on certificated airways. The great majority of these 31 communities have populations below 5,000, ranging in size from Pueblo, Colo., 10,071, Broomfield, Colo., 12,461, and Gallup, N. Mex., 7,041, to Grand Lake, Colo., 664. Approximate population of the 16 points, according to the 1940 census, is under 10,000.

The three routes of Bennett Airways, Inc., Laramie, Wyo., include 16 different points, 12 of which were previously off the airways. These 11 communities vary in size from



**Florida Division:** Orlando Airfield centrally-authorized feeder routes emanating Orlando, Jacksonville, Gainesville, Tallahassee and other Florida feeder distances and stops more will be designated when CAB certifies additional carriers in nine area route cases still pending. Seventeen other cities have been authorized stops for some time, but as of April 1 service was either suspended or yet to be inaugurated.



**Rocky Mountain Division:** Map of the first area feeder line network authorized by CAB shows routes of Ray Wilson, Inc., extending from Denver to Salt Lake City and Albuquerque (solid line), Denver-Cheyenne-Dall Lake City-Billings routes of Stevens Airways (dash line), extension of Julian Air Lines' AM 35 beyond Rapid City, S. Dak., to Sheridan, Wyo. (dot-dash line), and Western Air Lines' new stops at Jackson, Wyo., and Logan, Utah, on AM 19 (dotted line). Thin lines show established air carrier routes.

Greeley, Colo., 10,068; Colorado, Colo., 12,351, and Laramie, 10,627, to Greybull, Wyo., 1,625, with total population below 10,000.

Orlando Airfield, Orlando, Fla., will serve 16 points, seven being placed on a certificated route for the first time. Laramie, the system's gateway, is 12,357, smallest in Lovelock, Nev., 2,497. Total is under 60,000.

**New Points For Major Lines.**—Eight other intermediate points on routes of Western Air Lines and National Airlines were certified for the first time in the two area divisions. Population of the two cities National's route totals less than 30,000, and the six on Western's aggregate about the same.

To some degree, the new airline constituents in the Rocky Mountain and Florida areas are smaller than may be certificated in the Middle Atlantic, Great Lakes, North Central, New England and other areas, however, the contrast with the size of predominantly authorized points will remain.

**CAB Boarded.**—CAB has expressed doubt on several occasions concerning the traffic generating potentialities of the smaller cities. Most of the new airline constituents, which have shown what the Board deserves to be on the air map, will have the three-year period of the federal temporary certificates to cement their position.

Some airlines of the document with the long name that the U.S. Committee will make recommendations to PICAO. Where changes in U.S. or the popular activities, similar recommendations will be brought to the attention of the appropriate committees of Congress.

**Changes Likely To Be Asked.**—There appears no doubt that the Committee will consider necessary some changes in the laws upon which international travel regulations are based. The group also feels it is significant that when representations along these lines are made to Congress, they will come from some separate agencies and government departments, working as one.

The move for additional post office recognition growing importance of having the agencies as more outlets of postcard when travel agents are in New York, San Francisco, and perhaps Los Angeles. In some countries recommendations may coincide with others that have been issued on-airlines for U.S. carrier services.

**Hospitalization.**—Setting up in public interest among the several objectives sought is a proposed "international travel card," which once issued to a qualified citizen of any country, would admit him readily to any other. The Air Transport Association, since a proponent of the "basic program," is inviting surface transportation to join this view.

The multiplicity of forms of varying content, arrangement, and different sizes and colors, submitted

## Committee Seeks Simplification Of Passport, Customs Red Tape

Representatives of nine U.S. agencies will recommend legislation to Congress, and determine what this country shall propose to PICAO, to speed international travel.

A special Facilitation Committee seeking simplification and standardization of passport and customs procedures will make recommendations to Congress as legislation required to realize these goals.

The Committee is meeting at frequent intervals to determine also what this country shall propose along such lines to PICAO.

**U.S. Visa, Passport Office.**—An interim measure, it is suggested to the State Department that more passport agency offices be set up. Passports may now be obtained only at Washington, New York (two offices), Boston, Philadelphia, Miami, and San Francisco, while at present, soon to be discontinued.

Members of the Committee are hopeful they can minimize age-old delays of international travel and traffic to keep pace with development of international air transport. Agencies represented on the group are State, War, Navy and Post Office Departments; CAB and CAA; U.S. Public Health Service, Department of Justice's Immigration and Naturalization Service, and Treasury's Bureau of Customs. W. A. M. Barbour, Assistant Secretary of Commerce for Air, is chairman. John Lee, CAB member, is vice-chairman, and Selig Altshul, CAB analyst, is secretary.

**Based on PICAO Study.**—Foundation of the work is a document

known as International Standards and Recommended Practices on Customs, Immigration, Sanitary and Related Matters Facilitating International Air Transport, produced by the joint effort of committee on aviation border procedures representing all members of PICAO at sessions of that organization's Division on Facilitation of International Air Transport.

It is in making names of single-



UNITED EXPANDING TRAFFIC OFFICES:

United Air Lines is spending about \$50,000 to expand and relocate traffic offices in its system, and an addition plan to open offices in off-routes long-travel centers. Dangar will be similar. Enviro plan of the Chicago office, for which new space recently was leased, is shown above.

traveling members, dealing with aviation, passengers and cargo is causing much delay and expense, and the Committee is working on a sample standard from which will be prepared for use by all committees. Elimination of delays and inefficiencies in health and quarantine procedures also is sought.

**May Be Required**—In order to prevent cross-border passage will dislodge large groups of personnel in some agencies and areas administration indicate they will assist. We move. Others are willing to chair the way for progress.

Dr. George Van Hassell, vice-president of PCACD, points out that it is not possible at present to eliminate all delays due to weather, but that present delays can and should be removed. The Committee hoped the U.S. will set the example.

## Outstanding Figures Named to N.Y. Board

Guggenheim, Doubtless and Rockefeller appointed to new Airport Authority by Mayor O'Dwyer

Appointment of three wealthy-known aviation experts to the New York City Airport Authority drew instant criticism from labor. It is doubtful that the selection will vindicate the 12 officials who argued in the creation of the new agency.

Mayor O'Dwyer swore in on the authority's first members Harry F. Guggenheim, James H. Doubtless, and Lawrence S. Rockefeller, for four-year, four-and-a-half and two-year terms, respectively. They will serve without pay. Remaining appointments will be for one-year terms.

**Guggenheim Is Chairman**—Guggenheim, who is chairman, was president of the David Guggenheim Fund for the Advancement of Aviation. Between World War I and World War II, he was a naval aviator in World War I and in World War II organized and operated Mercer Field at Trenton, N.J., and was an advisor to naval combat duty in the Pacific. He left the service as a captain.

Doubtless, vice-president of Shell Union Oil Corp., has had a long civil and military aviation career. The public best knows him as the man who led the Tokyo raid in 1942. Rockefeller, Jr., the son of John D. Rockefeller, Jr., is a director of Eastern Air Lines, McDonald Aircraft Corp. of St. Louis, and the National Aerospace Association.



Airport Authority Members. Members of the newly-created New York City Airport Authority are sworn in by Mayor O'Dwyer (right). Left to right they are James H. Doubtless, Harry F. Guggenheim and Lawrence S. Rockefeller.

and belongs to several private financing organizations. Financing of aircraft manufacturing and air transport companies has interested him since he entered business in 1935.

**Problems Is Rivalry**—Involved financial problems confront the authority. The Authority is to take over LaGuardia Field and Idlewild Airport Oct. 1, possibly under 30-year leases, and until then will study finance of Idlewild and the possible renegotiation of existing leases between the city and the airlines for use of the airports.

Mr. Doubtless, in his letter to the legislature, pointing the authority said, there is still maneuvering concerning his terms and many of the

problems may give the City of New York new difficulties in the future, but he explained he thought the City Administrator was entitled to the opportunity to complete Idlewild in the manner which it considers the only one available."

**Details of Measures**—An agreed by the Governor, the measure creates the Authority to acquire, construct and operate airports in New York City and issue tax-exempt bonds up to \$250,000,000 outstanding at one time for which the city and state shall not be liable. The city may never let LaGuardia and Idlewild to the authority, subject to lease agreements made by the cities affecting these airports, and property for other airports that has passed of the city with system of the management involved.

**Other Developments**—Airport deregulation elsewhere.

### TCA Action Speeded

Trans-Canada Air Lines has agreed to submit its proposal to the government to merge with Canadian, Trans-Canada, Trans-Air, and Canadian, Ltd., and the Canadian Air Transport Association. Addition of a seventh airline, extension of passenger services and new route maps are included.

**Kennedy Gets**—Mr. Kennedy, president of the Canadian, has had been assigned for pre-hearing conference. Should such procedural stage as the consumer's report that of trials and oral arguments be avoided in other forums, a hearing committee would be held at the time of a decision in record time. TCA has been designated by the Canadian Air Transport Board to operate the five routes under an agreement concluded with the U.S. in February, 1946.

**Little Rock, Ark.**—Preliminary arrangements for \$1,000,000 in wastewater treatment equipment were completed at a meeting of the Chamber of Commerce, the Arkansas State Water Pollution Control Commission and the City Council of Alcorn County. Addition of a seventh railroad extension of passenger services and new route maps are included.

**Kennedy Gets**—Mr. Kennedy, president of the Canadian, has had been assigned for pre-hearing conference. Should such procedural stage as the consumer's report that of trials and oral arguments be avoided in other forums, a hearing committee would be held at the time of a decision in record time. TCA has been designated by the Canadian Air Transport Board to operate the five routes under an agreement concluded with the U.S. in February, 1946.

construction of runways at the Williams River Airport, Avoca, and the Waukesha Municipal Airport in Waukesha were completed. The airport is one of 100 airports listed and serves the people living in the western part of the state.

**Waukesha**—The airport was opened by the Waukesha Chamber of Commerce and Waukesha City Council because expansion of the city's airport is needed.

**Edmonton**—The Canadian Government recently announced that the Canadian Pacific Railway will build a new station at Yellowknife, Great Slave Lake and points in the North West Territories. The railway will connect the rail network of the Canadian Pacific system with the northern railway system. An express will point westward via a branch line to Fort Resolution, and another line to Fort Smith.

**Montreal**—The Ministry of Civil Aviation has issued an order directing the Canadian Pacific to develop between Montreal, the U.S. and British Columbia, two trans-Pacific flight routes.

**Freight Forwarding Case Postponed Indefinitely**

Proceeding conference on freight forwarding application of Universal Air Freight, Acme Air Express, American Air Freight Forwarders and Airways Freight (Decree 851 of 1945) has been postponed indefinitely.

**Alaska Airlines**—The second that following recent Congressional action, the entire relationship between freight forwarders and major carriers is undergoing investigation which will determine the character of services the companies in the case will be able to provide.

**Mayors Urge**—The public is not yet aware that the air travel bottleneck is already partially broken and that the airlines again are seeking more business.

Alaska Airlines, the second that following recent Congressional action, the entire relationship between freight forwarders and major carriers is undergoing investigation which will determine the character of services the companies in the case will be able to provide.

### Safety Fuel System Ruling Becomes Effective Oct. 31

All multi-engine transports in scheduled operation after Oct. 31 will utilize fuel system arrangements which prevent loss of power in more than one engine through failure of a single gas or oil line component. The safety provision is incorporated in new section 11361 of the Civil Air Regulations.

**Deadline**—For the necessary changes, which generally affect DC-3s, was originally set for October, 1946, but extended because of shortages of materials and lack of replacements for places taken out of service by the modification.

### UAL Poll Reveals Travel Preferences

Questioning of 19,000 present and potential airline passengers by United Air Lines has indicated that television, radio with individual speakers and pre-natal cocktails would receive warm endorsement by the flying public.

The recent poll further shows that the majority wants to avoid flight charges as cost-to-cost flights and will accordingly, arrange their trip to travel by day, that roundtrips are favored over stevens, 40 percent would like to have a distance telephone placed into a compact circuit, 32 percent consider departure and arrival times the chief factor influencing their choice of an airline, and 76 percent wish to continue the system of advance and reservations as against a "first come, first serve" plan.

**Unique Service Setup**—Recently, the response to public demand, United announced plans to place a "transports" equipped with special service features for mothers and children on a daily round-trip schedule between San Francisco and Los Angeles.

Mothers' evidence that the public is not yet aware that the air travel bottleneck is already partially broken and that the airlines again are seeking more business has been disclosed in a PCA poll announced last week by Harold A. Ober, general traffic manager.

Ober said that 20 percent of the air travellers questioned in 80 cities

spec. mech. low weight of only 25 lbs - over mounted pump is ideal for mobile applications. Unique design provides value with small seals that are dependable through extreme temperature ranges. The pump is new in introduction.

**ROMEC PUMP COMPANY**  
140 WOODWARD AVENUE, DETROIT, MICH.

**Romec**  
POWER DRIVE  
FUEL PUMPS

## • 3 Helpful McGraw-Hill Books

See them  
in store  
or by mail



### QUESTIONS AND ANSWERS FOR AIRPLANE AND ENGINE MECHANICS

*Complete and edited by James Russell Ainsworth, this book contains answers to the questions of thousands of airplane and engine mechanics. 300 pages, \$3.50.*

Now over 2,000 aircraft mechanics, aviators and other aviation personnel have found this book a valuable source of information. To order, send airmail money order to McGraw-Hill Book Company, Dept. A-10, 330 West 42nd Street, New York 18, N.Y. Price \$3.50. Add 50¢ postage and handling for each copy.

### Employ—BUSINESS EXECUTIVES\*

*By J. E. Darrow, C.P.A., in New York. How to get and keep a job as an executive officer of a financial firm.* 194 pages, \$2.50.

This is an exciting collection of check lists that tell you how to get a job—and how to keep it. It presents the "inside story" on what makes a good prospect look like a good prospect—and what makes him look like a bad one. It shows how to make the best use of your experience. It can help you get a job in any field of management. Whether you are just starting out or are already well along in your career, this book will help you move right along. It gives you more practical advice on how to succeed in business than any other book on the market. It is packed with important pointers and penetrating insights.

### AVIATION FACTS AND FIGURES 1948

*By Alfred L. Johnson, Associate, at the Bureau of the Budget, Office of the Director, 120 pages, \$1.50.*

A comprehensive reference handbook of statistics and figures on all phases of civil aviation in the United States. Includes tables on the number of passengers and freight handled, the cost of operation, the cost of fuel, and the cost of maintenance. An excellent reference manual on the economic status of transportation and its place in the national economy. It is intended for use by all officers and members of Congress, government agencies, and the press, and for all who are interested in the role of aviation, past and present.

### MAIL THIS OK-APPROVAL COUPON

NAME	ADDRESS
TELEPHONE	TELEPHONE
MAIL TO: McGraw-Hill Book Co., Dept. A-10, 330 West 42nd Street, New York 18, N.Y.	

of the Ministry of Communications and Public Works to grant the carrier the Mexico City-Merida concession. The case still must be heard on its legal merits, but meantime, the legal outcome

In deciding for Aerovias Brasil, the court made three principal points that the integrity of privileges issued by the Mexican Government must be maintained so that public welfare is of major importance in determining continuance of suspension, and that after a period for an air transportation operator has been granted an additional permission is needed to inaugurate services except approval of route and schedules.

**Part of Inter-Line Consortium.** The Interline is said to be part of the consortium that has existed for

many months between Aerovias Brasil and Compania Mexicana de Aviacion, the Pan American affiliate. Aerovias Brasil is not permitted to use any terminal building facilities at any airports owned by Pan American and CMA, although the planes may be landed there under government order.

The Supreme Court decision came on the eve of Aerovias Brasil's first anniversary. The company, headed by T. E. Barnett of Dallas, also president of Russell Airways, started the Mexico City-Merida service in July, 1948, and has had to renew its authorization to render services from Merida to Yucatan, Mexico, before the end of this month. The Cuban permit already has been obtained.

### PCA Opens New Service With 59-Passenger Plane

PCA will raise the passenger-cargo load of a DC-4 to 89 today (April 15) when it inaugurates daily round-trip Newark-Pittsburgh-Baltimore flights with four new aircraft. Later it plans to add to the company's fleet two cas more than that six other PCA DC-4s are now in service, giving it the largest passenger capacity of any commercial plane in domestic systems.

The 89-passenger arrangement, which also has two more seats for baggage, will be included in other DC-4s undergoing conversion by Glenn L. Martin Co., and PCA will make similar modifications made on the 40-passenger Caspianets previously placed in operation. War Assets Administration's recent allocation of six C-46As to PCA brings the company's four-engine fleet to 16.

**Other new services:**  
United Air Lines increased its New York-Chicago service to 30 round-trip

days, including five nonstop schedules. April 15.

**TWA—Interisland service between Honolulu and Oahu.** Effective April 15, using ATC 1, using ATC 4.

**Pan American Airways:** Started daily round-trip flights between the Pacific Coast and Honolulu April 15, with nonstop service to Seattle. The new service replaces the Pan American trans-Pacific routes that have been indefinitely postponed. Pan American will fly between Seattle and Honolulu on April 15.

**Norwegian Air Lines (NBL):** Started nonstop service between Norway and London with departure on April 15.

### CAB ACTION

#### The Civil Aeronautics Board

**Stated Federal Aid Money required to reorganize** *Bureau of Air Commerce, Inc.*, Atlanta office as \$24,100.

**Provided Chicago & Rockford to Memphis** was the second Bureau of Air Commerce office to be closed, effective April 15.

**Ordered McHugh Airlines to close down** the San Francisco office, effective April 15, and the San Francisco office will close on May 15.

**Provided Pan American Airways** to reorganize its Atlanta, Birmingham, Boston, Denver, and Oklahoma City offices on April 15.

**Reopened a Portland, Oregon, office** of the Bureau of Air Commerce, effective April 15.

**Granted authority of Memphis, New Orleans, and St. Louis to reorganize** their respective offices on April 15.

**Provided Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Approved** *Trans World Airlines* to reorganize its Atlanta, Birmingham, Boston, Denver, and Oklahoma City offices on April 15.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.

**Granted Board of Air Commerce** with \$100,000 to close its Atlanta, Ga., office.



### Propellers for 175 Different Plane Models

The Flottorp propeller is the  
standard propeller for the  
airplane models of  
hundreds of manufacturers.

World's largest manu-  
facturer of propellers. Made by skilled  
craftsmen in rooms of  
fine wood working.

**FLOTTORP MFG. CO.**  
Milwaukee, Wis.  
David Flottorp, Pres.

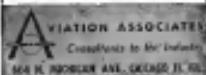


Be sure to provide your Salesmen  
with the most fundamental  
tool of their profession . . .

### SALES TRAINING

\* Successful salesmen know how to  
treat the three sides of the client  
and handle trouble spots . . . We have  
spent two years developing a pro-  
gram to show Salesmen how  
to do it . . . May we tell about it?

Aviation Institute of  
Professional Sales Training  
Milwaukee, Wis.



CONFIDENTIAL TO INDUSTRY

600 N. Michigan Ave., Chicago 11, Ill.

### Kelbert WATER-TIGHT CHRONOGRAPH

a triumph in precision, as a

- Water-tight
- Stop-watch
- Barometer
- Altimeter
- Polymeter



— 10 jewels, shock-proof,  
water-tight, 12 hrs.,  
and 30 minutes records.

14 hr. solar power. \$284.  
Retail price \$310.00.

Other outstanding models are  
individually priced.  
At selected points  
Order and repeat.

KELBERT WATCH COMPANY, INC., 600 Fifth Ave., New York 20, N.Y. Dept. 102

### SERVICE!

Have your Aircraft Maintenance and Repair done in  
New England's Finest Shop  
by Experienced Personnel

Repairs—Weight and Balance Tests  
Radio Services and Repairs  
Radio and Instrument Repairs and Adjustments  
Frequency Calibration—Electrical Assembly—Springs  
Conversions on all types—including C-46s

**EAST COAST AVIATION CORPORATION**  
State Line State Airport, Holliston, R. I.  
Telephone: Greenwood 2-3750-3860

## CAA—First Things First

**T**HREE MILLION DOLLARS for operating 110 control towers at the Nation's busiest air routes in the fiscal year of 1947 were slipped out of the CAA budget by the House Appropriations Committee last week.

The committee report suggests that the towers should be operated by CAA personnel, under CAA standards and with CAA supervision, but not on government funds. Thus, said the committee, should come from state or local governments.

Aviation went through all of this line in 1945 when military funds to operate control towers suddenly expired, and CAA received at the last minute emergency funds to keep the Nation's air traffic moving until the end of the current fiscal year, June 30.

The committee, apparently without checking authorities, passed along the current charge that CAA employs three employees for every civil plane. Like other unthinking critics, numbers failed to make how many of CAA's 18,478 employees on Dec. 31, 1946, were in the Bureau of Federal Airways. The number was about 8,200. In safety regulation of the approximately 39,000 airplanes there are something less than 1,000 CAA at this time; his fewer employees than in 1945 or 1946.

If CAA is overstuffed, let's put first things first. As AVIATION NEWS has contended repeatedly, CAA's basic difficulty is in a few inferior assistant administrators.

### Converting IATCB

EIGHT months have passed since VJ-day, but the war-born Interdepartmental Air Traffic Control Board still grasps much of its emergency control of civil airports and facilities, although the military and naval dominance of this once dominant committee finally has faded somewhat since last winter when the Senate was officially deplored the board's reluctance to give up the powers over airports and facilities which it borrowed from CAA and CAA.

Fortunately, however, the Air Coordinating Committee, represented by Secretary Wallace, the CAB chairman, the administrator of Civil Aeronautics, and one official each from Army and Navy, is at work on a peaceful integration of the board. This will permit it to retain only those advantages which made it a true clearinghouse for these aviation agencies, but will subordinate the group and clarify its status as purely advisory. This will render it impossible to force on the civilian agencies unnecessary projects desired by the military in time of peace. This was a legitimate right of the services, only as long as they had a war to wage.

It is proposed to make the successor to the IATCB a subcommittee of the Air Coordinating Committee, acting in the interest of all agencies in those matters requiring cooperative action by any two or more of the four parties to the original informal agreement.

Administrators so steeped and besotted in bureaucracy and so lacking in business administrative abilities and efficiency that they are unable and unwilling to carry out to the letter the policies of Administrator Wright. Capable officials of installed will find ways to claim base at CAA in preparation for aviation's tremendous growth which is underway. The passage of a national airport program will put another massive responsibility on CAA's Airport Division.

Define us except glib, off-the-cuff talk at three CAA employes for every civil aircraft lets measure a half-decent, too-well-entrenched official and replace them with progressive business men. Then let there be an investigation by any independent group, or Congress, of charges that CAA is overstuffed.

But choking off air chart notice funds for the Nation's traffic control towers which are keeping our airways, Army and Navy aircraft and private planes from picking up at every air center is no way to help aviation. Very few states, of course, could possibly make available funds for control towers by July 1. It is remarkable that the House will not take proper action to keep traffic moving, and overrule its Appropriations Committee. But the committee's action is indeed a convincing example of carelessness of use of taxpayer or debt-holders' money by those who in the past have claimed to have aviation best interests at heart.

Setting up the IATCB. This reorganization of an overgrown and complicated war instrument is long over-due, but still welcome at this late date.

### Floridians Encourage Flying

DURING the current rash of new landing fees being levied against private flyers in various sections of the country, it is a refreshing contrast to receive a report from James H. Mooney, director of aeronautics for Pasco County, at Clearwater, Fla.

Members of this bureau have taken a necessary glimpse at the deceptive lure of landing fees as a producer of income. Unlike similar agencies elsewhere, however, they have not succumbed to this short-sighted allure.

Instead, they passed the resolution that "No landing fees be charged for lightplanes and non-commercial carriers and that the Federal Agency and the aviation industry intercede therewith so advised, and further that the director of aviation be instructed to encourage the utilization of airport facilities, such as ground service, restaurants and other facilities and that due publicity be given to this resolution by the director of aviation."

AVIATION NEWS is glad to aid in such publicity. It will print notices from all other associations which go record in a similar manner.

BENNETT B. WOOD

up goes efficiency

DOWN goes weight

for all types of planes with the new  
**BENDIX** segmented  
**ROTOR BRAKE**

**Design Features** • Fixed disc or fixed with static drive using a segmented or continuous flying disc and provide an explosive discless flexible and positive braking from the rear central position. Braking is delayed to the rear, providing maximum landing safety. Safety disc used in segments instead of a continuous ring. This allows the fixed segments without warping or cracking.



Bendix® Landing Gear • Bendix Propellers® • Bendix Axles • Bendix Airplane Wheels • Bendix Brakes • Bendix Starter Motors • Bendix Gyro Gyroscopic Instruments • Bendix Radio Panels made up on the basis of Bendix Landing Gear Requirements.  
Write for catalog.

BENDIX AVIATION CORPORATION  
SOUTH BEND 26, INDIANA

**BENDIX PRODUCTS DIVISION**



Army-Douglas C-74 Globemaster hauls useful load of 30 tons, has non-stop range of 7500 miles at better than 300 MPH, carries enough gasoline to drive average passenger automobile 165,000 miles, taxies backward. Douglas Aircraft Company uses Texaco Aircraft Engine Oil exclusively!

# DEPENDABILITY...

**still the greatest factor in flight**

THE largest land transport in the world, the Army Air Forces' Douglas C-74 Globemaster offers utmost in trans-world cargo- and passenger-carrying speed and load capacity.

But *dependability* is still the most vital factor in flight. To assure it, experienced operators rely on effective lubrication — *Texaco* — to keep engines at their performance peaks.

*Texaco Aircraft Engine Oil* is the choice

of America's expanding sky fleets. In fact, it has long been true that —

*More revenue airline miles in the U.S. are flown with Texaco Aircraft Engine Oil than with any other brand.*

For Texaco Aviation Products and Engineering Service, call the nearest of the more than 2300 Texaco distributing plants in the 48 States, or write The Texas Company, *Aviation Division*, 135 East 42nd Street, New York 17, N. Y.



**TEXACO Lubricants and Fuels**  
FOR THE AVIATION INDUSTRY

TUNE IN THE TEXACO STAR THEATRE WITH JAMES MELTON EVERY SUNDAY NIGHT—CBS